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J. J. CASSIDY, M.D., EDITOR.

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MANAGING EDITOR
W. A. YOUNG, M.D., L.R.C.P. (Lond.),
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The Canadian Journal of Medicine and Surgery

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Editorials

THIRTY-SECOND ANNUAL MEETING OF THE ONTARIO MEDICAL ASSOCIATION

THE thirty-second annual meeting of the Ontario Medical Association, which was held at the Medical Building, University of Toronto, May 21st, 22nd, and 23rd, was well attended, three hundred and sixty-three members having registered. The programme of papers was short, a good deal of time being devoted to clinics in medicine, surgery, ear, eye, nose and throat, X-rays, and pathology. Clinics were also given at the Toronto General Hospital, St. Michael's Hospital, Grace Hospital, the Western Hospital, and the Asylum, Queen Street West. Dr. W. A. Turner, lecturer on Neurology at King's College Hospital, London, Eng., was to have given the address in medicine; but was unable to be present at the meeting. In his absence, his paper was read by Dr. Fotheringham, Toronto. The President, Dr. Herbert A. Bruce, gave special prominence, in his address, to topics of cur-

rent medical interest in Canada. Quite the most notable event of the meeting was a lecture by Professor Alexis Carell, of the Rockefeller Institute, New York, entitled "Experimental Researches in the Surgery of the Blood-Vessels and the Transplantation of Tissues and Organs." This lecture was profusely illustrated with lantern slides.

The festivities of the meeting were of a very pleasing character. On May 22nd, a complimentary luncheon was tendered to the members of the Association by the City Council of Toronto. In the afternoon of the same day a garden party was given at the house of Dr. Bruce, the President. In the evening, the annual dinner was held at McConkey's Restaurant. On May 23rd, through the kindness of the President and Directors of the Ontario Jockey Club, complimentary badges were issued to the members and their ladies for the races at the Woodbine. The various golf clubs of the city also extended their hospitality to the members.

The following officers were elected for the coming year:—President, Dr. Charles McGillivray, Port Hope; First Vice-President, Dr. A. T. Shillington, Ottawa; Second Vice-President, Dr. Taylor, Goderich; Third Vice-President, Dr. W. T. Park, Woodstock; Fourth Vice-President, Dr. J. H. Hare, Cobalt; Secretary, Dr. F. A. Clarkson, Toronto; Treasurer, Dr. J. H. Elliott, Toronto. J. J. C.

FEE-SPLITTING DISCUSSED AT THE ONTARIO MEDICAL ASSOCIATION MEETING

At the first session of the Ontario Medical Association Meeting, May 21st last, a discussion on fee-splitting evoked a mild hubbub. It all arose from a resolution submitted by Dr. F. N. G. Starr, Toronto, "condemning the payment of a commission to any person instrumental in influencing patients to apply for professional advice, and providing that, when two or more practitioners shared in a disposition of the fees, it should be with the knowledge and consent of the patient." This resolution was vigorously batted about at the meeting; but was finally rescued by the President, Dr. Herbert A. Bruce, who suggested that it be referred to a committee for consideration and report. This proposal was acted upon, and the committee will be selected by Drs. Bruce and Anderson. From the excitement displayed by the members, during the discussion of Dr. Starr's resolution; from the charges and counter-charges made by the disputants, it was quite evident that the real subject matter involved was a matter of money. Put somewhat briefly, it may be stated, that certain Toronto doctors are well qualified to do operative work, which is usually performed in public or private hospitals. To present a concrete case: A country practitioner, unable or unwilling to take the risk of doing a required operation, sends his patient to a Toronto surgeon, with, probably, a written history of the case. The Toronto surgeon makes all the neces-

sary preparation, operates (successfully, let us hope), and then charges a whacking bill, from which, like a good sport, he subtracts a neat commission, for the benefit of his confrere. It would be idle for the Toronto surgeon to waste time in dealing out a homily to the patient on the propriety of his paying a considerable sum of money to a country doctor, who had given advice and information, and secured him the services of a competent surgeon. If it were a real estate deal, the question of agency would be understood by the patient, who would readily pay a commission; but, in the selection of a surgeon—a matter in which agency may mean life or death—the country doctor is not supposed to be entitled to fee or reward, and he gets none, unless he drives a few miles, feels a pulse, looks at a tongue, or does some other medical or surgical work.

The Toronto surgeon doesn't waste time in discussing or explaining the question of the partition of fees; he just presents the bill and sees that it is promptly paid. It looks like a straight business proceeding, and would indicate the early business training, which had been acquired by some of the Toronto surgeons. Should a Toronto surgeon go far afield, should he grasp more than his share of profitable cases, by enlisting admirers resident in different parts of the Province, his professional rivals will not forget to take him to task. But—and here we would interject just one remark—of what avail is academic discussion about fee-splitting? Let us have the names, dates, and charges, and then, gentlemen, we

will know that you are in earnest in your efforts to maintain the best traditions of medical ethics.

J. J. C.

THE LION-SLAYING RECORD BELONGS TO A DOCTOR

Professor Kattwinkel, who recently took a trip through German East Africa, in the interests of medicine and natural history, has killed ten big lions with the rifle, according to a correspondent of *Paris Médical*. These exploits put him at the head of the list in lion-slaying. Theodore Roosevelt shot eight or nine lions during his East African trip, but not one of them was as big as any one of the ten full-grown lions shot by Professor Kattwinkel. Dr. Kattwinkel is Professor of Neurology in the Munich Faculty of Medicine; he is also a noted zoologist, and, in his leisure hours, a first-rate rifle shot. The Professor's first bag of lions was got under somewhat dramatic circumstances. Two Wanderobbos (native African trackers) had been on the lookout for lions, during several weeks, while the Doctor's caravan rested in a part of the country which was considered to be particularly rich in big game; but without success. However, early one morning, when Kattwinkel was sleeping in his tent, one of the Wanderobbos ran into camp, and, after the Doctor had been awakened, informed him that he and his chum had tracked three lions, which were lying resting about two hours' march from the camp, and that his chum had remained behind to watch them. Kattwinkel jumped

out of bed and dressed hurriedly. While swallowing a cup of tea he handed his rifle to his "boy" to be loaded and then started off with the Wanderobbo. They crossed a plain, and, after a while, got to a little hill, overlooking a heath thinly covered with bushes. The second Wanderobbo was waiting there for them on his knees; with the tip of one of his arrows he pointed out a thorn bush about four or five yards in thickness, at a distance of twenty-three paces or so from where they stood. Kattwinkel stared with all his eyes at the thorn bush; but could only see dry grass. Disappointed in his expectation, he told the Wanderobbos, in a low voice, that he thought they had made a mistake. They persisted that they were right, and that there were lions in the thorn bush. About the middle of the bush a streak of yellow was visible, which might or might not be unusually dry grass. So that, for good luck anyway, Kattwinkel pulled the trigger; but—no report followed. Like a flash, Kattwinkel knew what had happened; in the hurry of their departure from camp, the "boy" had misunderstood his order, and, instead of loading the rifle, had fired it off. Without budging, Kattwinkel, in profound silence—silence so deep that he could hear the beating of his own heart—quietly pushed five cartridges into the magazine of his rifle, brought the piece to his shoulder, and fired into the thorn bush. With furious roaring, three big lions sprang from the cover towards him. Kattwinkel aimed at them as coolly as if he was shooting at a target: the right hand lion he shot in the neck; the left hand one

in the breast; the middle one made a tremendous spring, landing within five metres of the hunter, who sent his last ball through the creature's right eye, stretching it dead at his feet. Thus, in three seconds, Kattwinkel got a bag of three lions. A few days afterwards, while taking a stroll, Kattwinkel suddenly met a troop of lions; this time there were four of them, two lions and two lionesses. There were only four cartridges in the magazine of his rifle. With the two first balls he killed the two lions; each of the lionesses he seriously wounded with a rifle ball, so that the both of them took to flight, leaving him safe and sound, as well as Mrs. Kattwinkel, who had accompanied him in his stroll, and was standing only a few paces behind him, during the shooting episode. Dr. Kattwinkel uses a plain six-and-a-half millimeter Mauser rifle and nonexplosive bullets. J. J. C.

MEETING OF THE CANADIAN ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS

THE Twelfth Annual Meeting of the Canadian Association for the Prevention of Tuberculosis—the first ever held in Toronto—which assembled at the Margaret Eaton Hall, May 20th and 21st, was very well attended. At page 11 we publish a summary of the proceedings, which has been kindly furnished by the Secretary, Dr. Geo. D. Porter.

The Association is to be congratulated on its good fortune in having, as a successor to Prof. Adami as

President, the Hon. Adam Beck. Prof. Adami gave much time to the work, during the three years he was President, and did much for the good of the Association. We feel sure that the Minister of Power, who has done much for the work in London, will also be a great help during the coming year to the Association.

The officers for the ensuing year are: President, Hon. Adam Beck, Minister of Power, London, Ont.; Treasurer, Geo. Burn, Esq., Ottawa, Ont.; Secretary, Dr. Geo. D. Porter, Toronto, Ont. J. J. C.

CRAWFORD WILLIAMSON LONG, THE DISCOVERER OF SURGICAL ANESTHESIA

We are indebted to *Old Penn,* the weekly review of the University of Pennsylvania, for an account of the apotheosis of Dr. Long, the discoverer of ether as a surgical anesthetic. The proceedings took place on the afternoon of March 30, 1912, when a handsome gilt bronze medallion was unveiled, in his honor, in the Medical Building of the University of Pennsylvania, in the city of Philadelphia.

Eloquent and scholarly addresses were made on this occasion by Dr. J. William White, M.D., LL.D., of the University of Pennsylvania, and by John Chalmers Da Costa, M.D., LL.D., of Jefferson Medical College. The medallion was modeled by Dr. R. Tait McKenzie, of the University of Pennsylvania, and represents Dr. Long, as a young man, adminis-

tering ether for the first time to a patient about to be operated upon.

Dr. Da Costa related how Long gave ether for surgical purposes, March 30, 1842, over four years before Morton did, and at least two years before Horace Wells pulled the tooth of a patient, who was under the influence of nitrous oxide gas. Dr. Long, it appears, made no official claim to the discovery until 1849, when he told his story to the Medical Society of Georgia. He did so then, only because his friends thought he would be doing himself an injustice in keeping silent. His intention had been to collect enough cases to thoroughly test the matter. This was slow work in a country district in which surgical operations were few and far between. He used ether seven or eight times in four years.

In the statement made to the Georgia Medical Society, Long presented an affidavit of James M. Venable, then living, stating that ether had been given to him by Dr. Long, on two occasions, in the Spring of 1842—an affidavit of Andrew J. Thrumond, stating that he saw Dr. Long do one of the operations on Venable—affidavits of E. S. Rawls and Wm. H. Thrumond, declaring that they witnessed one or both operations and other conclusive evidence. The original affidavits still exist.

The evidence of priority of discovery in Long's favor has been accepted by eminent authorities, such as Dr. Marion Simms, Sir James Paget, Dr. George Foy, Dublin; Dr. Hugh H. Young, Baltimore; Frederick W. Hewitt, author of "Anesthetics;" Henry M.

Lyman, "Artificial Anesthesia and Anesthetics," and recently by Dudley W. Buxton, a distinguished English anesthetist.

Many graduates in medicine will be pleased to know that the final award for the discovery of surgical anesthesia goes to a physician, a son of the University of Pennsylvania. Anesthesia for surgical purposes was peculiarly an American discovery; but there seems to have been a certain fitness in the first application of the new process having been made by a graduate of that university, which was founded by the greatest of American discoverers, Benjamin Franklin. J. J. C.

THE REORGANIZATION OF THE MEDICAL COUNCIL

THIS Journal has from time to time had to criticize the Council of the College of Physicians and Surgeons of Ontario. The Council seemed to realize that the criticisms of this and of other journals, both lay and professional, were justified, and that there must be a reorganization, and appointed for this purpose a Committee consisting of Drs. E. E. King, Hardy, Ryan, McColl, McArthur, Varden, and J. MacCallum (see Announcement, 1911-12, page 134).

With much surprise and some pleasure we learn that at last this Reorganization Committee has been called together. The gentle hints of the press and of the late President of the Ontario Medical Association have wakened the Committee from its long sleep—may it stay awake long enough to surprise us by doing something.

The profession expects radical action from this Committee. There must not be any providing of pocket boroughs for the wire-pullers. In England the members of the General Medical Council are elected by the profession as a whole, not by districts. In Ontario the Law Society elects its benchers in the same way and they serve without remuneration. The members of the Medical Council should be elected by the whole profession and serve without remuneration other than legitimate travelling expenses. Strange as it may appear to many members of the Council, its object is not to give them a summer holiday at the expense of the profession. Membership in the Council should be an honor, not a "snap." The only governing educational body in Ontario the members of which receive pay is the Medical Council.

A Council of five elected members, one from each University teaching medicine, and one homeopathic representative is large enough. As Ontario has less than three thousand practitioners, one representative for every six hundred physicians seems reasonable.

THE MEDICAL COUNCIL AND THE OSTEOPATHIC BILL

In our last issue we published in full the Osteopathic Bill, which was thrown out by the Ontario Legislature. This bill was introduced by Dr. Jamieson, at the instance of the Legislative Committee of the Council of the College of Physicians and Surgeons of Ontario.

The bill deals with three separate and distinct matters, *viz.*, the enabling clause bringing into force the Dominion Medical Act, the licensing of Osteopaths (the large majority without any examination or period of study), and a definition of the " practice of medicine."

How the Medical Council could ever authorize such a bill was beyond comprehension. Reference to the Proceedings of the Council for 1911-12 forces us to believe that it never did authorize the portion of the bill dealing with Osteopaths. To the Legislative Committee of the Council, or to some self-sufficient member of it, the medical profession of Ontario owes this wanton and senseless attempt to sacrifice its rights. On pp. 111-112 of the annual Announcement of the College of Physicians and Surgeons, 1911-12, is found the report of the Special Committee on the Dominion Medical Act, and the instruction to the Legislative Committee to apply for the necessary enabling clause.

On p. 110 of the same Announcement the Prosecutor's report is found. In this report he suggests that the Council try to have adopted the definition of the " practice of medicine " given in the British Columbia Medical Act of 1909. That definition has been adopted unchanged in this bill emanating from the Legislative Committee of the Medical Council. Diligent search in the Proceedings of the Council fails to reveal any direction or request that the Legislative Committee should, in any way, seek to license Osteopaths and to present them with membership in the

College of Physicians. Yet this Legislative Committee, without any shadow of authorization, proposed that the College of Physicians and Surgeons should stamp with its hallmark as practitioners a group of men well known to be ignorant of any real knowledge of medicine or its practice.

Fortunately for the public, the special Committee of the Ontario Legislature,—a committee of laymen, not medical men,—had more common sense than the doctors composing the Legislative Committee of the Ontario Medical Council. They recognized that this bill was not in the interest of the general public, and cut out everything but the enabling clause.

To the Ontario Medical Council has been entrusted the twofold duty of protecting the public and the profession against ignorant, uneducated, would-be practitioners. Let the Council live up to this duty. It would be too much to expect the Council to appoint a Legislative Committee which had ordinary common sense. It might at least see that its Committee obeys instructions and does not further embroil it with a public and profession already sufficiently embittered against it.

Canadian Journal of Medicine and Surgery

Editor:

J. J. Cassidy, M.D.

45 Bloor St. E., Toronto

Managing Editor:

W. A. Young, M.D., L.R.C.P., Lond.

145 College St., Toronto

Surgery:

N. A. Powell, M.D., C.M., Professor of Medical Jurisprudence, Toronto University; Senior Assistant in charge, Emergency Department, Toronto General Hospital; J. F. W. Ross, M.D., Professor of Gynecology, University of Toronto; Gynec logist, Toronto General Hospital.

Clinical Surgery:

Alex. Primrose, M.B., C.M., Edinburgh University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University; Surgeon Toronto General Hospital; and Herbert A. Bruce, M.D., F.R.C.S., Eng., Surgeon, Toronto General Hospital.

Orthopedic Surgery:

B. E. McKenzie, B.A., M.D., Toronto; Surgeon to the Toronto Orthopedic Hospital; ex-President of the American Orthopedic Association; and H. P. H. Galloway, M.D., Orthopedic Surgeon, Winnipeg General Hospital; Lecturer in Orthopedic Surgery, Manitoba Medical College; Member of The American Orthopedic Association. W. E. Gallie, M.D, Associate Surgeon, Hospital for Sick Children, Toronto; Junior Surgeon, Toronto General Hospital.

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J. T. Fotheringham, M.D., Lieutenant-Colonel, Army Medical Corps, Associate Professor of Medicine and Clinical Medicine, University of Toronto; Associat· Collaborator Chas J. Copp, M.D., C.M., Hon. Sec. Provi·cial Council of Ontario, St. John Ambulance Association.

Medical Jurisprudence and Toxicology:

Arthur Jukes Johnson, M.B., M.R.C.S., Eng., Coroner for the City of Toronto; Surgeon Toronto Railway Co., Toronto; W. A. Young, M.D., L.R.C.P., Lond., Ex-President of the American Medical Editors' Association; Associate Coroner, City of Toronto.

Physiotherapy:

Chas. R. Dickson, M.D., C.M., Queen's University; M.D., University of the City of New York; Electrologist Toronto General Hospital, Hospital for Sick Children and St. Michael's Hospital.

Pediatrics:

Allen Baines, M.D., Toronto; Associate Professor Pediatrics, University of Toronto; Physician, Hospital for Sick Children; A R. Gordon, M.D., Toronto; Senior Medical Assistant, Toronto General Hospital; Helen MacMurchy, M.D., Toronto.

Medicine:

J. J. Cassidy, M.D., Toronto, ex-Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; W. J. Wilson, M.D., Toronto, Physician, Toronto Western Hospital; and Dr. J. H. Elliott, ex-Medical Superintendent, Gravenhurst Sanatorium, Ont.; Assoc ate Medicine and Clinical Medicine, University of Toronto; Senior Medical Assistant, St. Michael's Hospital.

Clinical Medicine:

Alexander McPhedran, M.D., Professor of Medicine and Clinical Medicine, Toronto University; Physician, Toronto General Hospital; Lewellys F. Barker, M.D., Professor of Medicine, Johns Hopkins University, Baltimore, Md. H. B. Anderson, M.D., Toronto; Associate Professor of Clinical Medicine, University of Toronto; Physician, St. Michael's Hospital.

Mental and Nervous Diseases:

N. H. Beemer, M.D, Mimico Insane Asylum; Campbell Meyers, M.D., M.R.C.S., L.R.C.P. (London, Eng.), Private Hospital, Deer Park, Toronto.

Gynecology and Obstetrics:

Geo. T. McKeough, M.D., M.R.C.S., Eng., Chatham, Ont.; C. F. Moore, M.D., Toronto; and A. C. Hendricks, M.A., M.B., Demonstrator in Gynecology, University of Toronto; Assistant Gynecologist, Toronto General Hospital.

Pathology:

W. H. Pepler, M.D., C.M., Surgeon Canadian Pacific R.R., Toronto; Junior Medical Assistant, St. Michael's Hospital; and J. J. Mackenzie, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Pharmacology and Therapeutics:

A. J. Harrington, M.D., M.R.C.S., Eng., Toronto.

Ophthalmology:

J. M. MacCallum, M.D., Toronto, Senior Assistant Eye Department, Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Nose, Throat and Ear:

Percy G. Goldsmith, M.D., 84 Carlton St., Toronto, Laryngologist and Aurist, Provincial Institution for the Deaf and Dumb; Senior Assistant Ear, Nose and Throat Department, Toronto General Hospital.

Dermatology:

D. King Smith, M.B., Tor., Toronto; Demonstrator in Pathology, Toronto General Hospital.

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Original Contributions

PRESIDENTIAL ADDRESS*

BY HERBERT A. BRUCE, M.D., F.R.C.S.,

President of the Ontario Medical Association; Associate Professor of Clinical Surgery, University of Toronto; Surgeon to the Toronto General Hospital.

Owing to the custom which has prevailed of electing your President at the end of the Annual Meeting, this is the first opportunity that has been afforded of thanking you for the distinction which you were good enough to confer in electing me to fill this very important position. While fully appreciating the honor which you have done me, and for which I am most grateful, at the same time I am fully aware that it carries with it very serious responsibilities. On looking back over the long list of distinguished men who have preceded me, I realize that it is a difficult task to maintain the high traditions of this office. I need scarcely say that I have done my best to justify the confidence you have placed in me, and have been exceedingly fortunate in securing on the various committees the assistance of able and energetic men, who have devoted a great deal of time and consideration to the working out of the details connected with this meeting.

As you will see from the programme, we have very considerably altered the character of the meeting. Realizing the interest and value of clinical work, instead of having sessions devoted to the reading of papers, we have endeavored to make the meeting entirely a clinical one, and I trust that the result will justify the experiment.

In view of the fact that members from a distance could not conveniently bring cases to the meeting, and wishing to give them an opportunity of taking part in the proceedings, we have

*Delivered at the Thirty-second Annual Meeting of the Ontario Medical Association, held at Toronto on May 21st, 22nd and 23rd, 1912.

asked them to give us short case reports, and have in this way secured a few short papers. We felt that the presentation of clinical cases, with the ensuing discussions, would be of much greater interest and advantage to the profession than listening to a number of lengthy papers. Our policy has been to invite members outside the city of Toronto only to take part in the symposia and to read papers, and it was only because, in some of the sections, we failed to secure a sufficient number in spite of repeated appeals, that we have had to fall back upon some of the Toronto members. I think the members of the Association generally do not fully realize the extreme difficulty, often amounting to impossibility, of securing papers from members in country districts.

Whilst we have endeavored to provide a varied and interesting clinical programme, we have not been unmindful of the social side, and I therefore hope you will find the meeting both instructive and enjoyable.

I should like to take this opportunity of referring to the great loss which the profession in the Province of Ontario has sustained in the untimely and tragic death of a former President of this Association, the late Dr. James F. W. Ross. He always took the keenest interest in the affairs of this Association, and was present at our last meeting at Niagara Falls. He could always be relied upon to do his utmost to further the interests of his beloved profession, and it is scarcely necessary for me to say that the profession, as a whole, and this Association in particular, has lost a very staunch friend, and one whose place it will be difficult or impossible to fill.

I should like also to refer to the loss which the profession throughout Canada has sustained in the death of Dr. James Bell, of Montreal. He was one of our truly great men, and has done a great deal to elevate the standing of the Canadian medical profession.

As each year of my professional life passes, my conviction becomes stronger that an organization of some kind to bind the profession together is an absolute necessity, and that for this purpose we could have nothing better than our Ontario Medical Association, which is a potent influence for the good of the profession and the public.

When it was first suggested that this Association should become a branch of the Dominion Medical Association, many of us feared that in this way we might lose our identity. As the scheme has eventually materialized, however, I think it a distinct advantage to the Ontario Medical Association. Whilst we have retained our autonomy, and are thriving and prosperous, we are at the same time—I think I may say without boasting—the most important branch of the Dominion Association, and can feel that our interest is not merely provincial, but that we have a larger and wider outlook through our connection with the National Association.

I think it very desirable that there should be an increase in the number of small County Medical Societies, and I should like to suggest that for this purpose the Province be divided into ten districts, corresponding to the ten health districts recently established by the provisions of the new Health Bill. As there are forty-seven counties in the Province, this would mean that each society would include four or five counties, which appears to me to be a practical arrangement. Then the method of securing membership in the Ontario Medical Association would be simplified by accepting the members of these smaller societies, which would obviously be in a better position to determine their qualifications.

When the Ontario Medical Council was first established there were three Licensing Boards in Canada, in addition to the Medical Schools and Universities, namely, the Upper Canada, the Homœopathic and the Eclectic Medical Boards. The Universities, in addition to conferring degrees, really possessed licensing power, inasmuch as the holder of a University degree was entitled to practise medicine on proving his identity and paying a small fee. The Provincial License enabled the holder of it to practise in the Province conferring it, or in fact in any other Province, so that as a matter of fact there were in Upper and Lower Canada, exclusive of the other Provinces now constituting the Dominion, seven or eight Licensing Boards responsible to no central authority. On the establishment of the Ontario Medical Council it became the central authority and the only licensing body.

Before this time the schools and universities fixed their

curricula, both for matriculation and professional examinations; some of the Licensing Boards required no standard of matriculation at all, and the professional acquirements necessary to become a practitioner of medicine were of a very inferior character.

The first step taken to remedy this state of things was the "Parker Act," passed in 1865, providing for the formation of a Council with power to fix the standard of matriculation and that of the medical curriculum, but giving it no power to enforce this standard. The Homœopathic and Eclectic Boards were not interfered with, and the provisions of the Act were found to be very defective. An arrangement was then made with the homœopaths and eclectics and the various schools and universities, whereby the whole of the profession became subject to the Medical Council of Ontario, as a central authority. This Council was made up of representatives, elected from and appointed by the general profession, the medical schools and universities, and also from the homœopathic and eclectic bodies. This Act came into force in 1868, and conferred upon the Council power to fix the standard of all examinations and appoint examiners to conduct them.

Prior to 1867 the matriculation examination of our colleges was simply a matter of form, and could be passed at any time before going up for the degree. Now it is equivalent to a second class teacher's certificate, with compulsory Latin and physics and the science course. I believe that at the present time all the colleges and universities in the Dominion require four years of study before a student goes up for his degree, and in McGill University and the University of Toronto five years are required.

The President of the University of Toronto, in his last published report, suggests that the entrance standard for medicine in the University of Toronto shall be senior matriculation, which really amounts to the first year at the University, and I may say that recently the Medical Faculty has recommended to the Senate that an examination equivalent to that of senior matriculation shall be demanded of all students entering the Medical Faculty of the University of Toronto in future.

Last year the Ontario Medical Council very wisely decided

to discontinue its Primary and Intermediate Examinations, accepting the Primary and Intermediate Examinations of the Universities, and only requiring a Final Examination in Medicine, Surgery and Obstetrics. As soon as the Dominion Medical Council comes into operation, it would seem unnecessary for the Ontario Medical Council to hold even the Final Examination, as a student would naturally prefer to take the examinations of the Dominion Medical Council, which would entitle him to practise in any part of the Dominion. This takes away one of the functions of the Ontario Medical Council, and while it may have other duties to perform of a sufficiently important character to justify its existence, I think there is a general feeling that its numbers might, with advantage, be greatly reduced.

The number of homœopathic representatives is altogether out of proportion. Through the courtesy of the Registrar, Dr. Bray, I have learned that there are 48 homœopaths practising in the Province, and 3,280 regular practitioners. These 48 homœopaths have 5 representatives on the Council, that is to say 1 to about every 9½. The 3,280 regular practitioners have 18 representatives, and if we add to these the six representatives from the colleges, making 24 altogether, we may say that they have one to every 136. Amongst the members elected from the colleges we find that there is a representative for Victoria University, for Trinity University and for Ottawa University, none of which have Medical Faculties, and I can see no reason whatever why they should continue to have representatives on the Council.

I would suggest that the Ontario Medical Council consist of ten members, one to be elected by the homœopathic physicians, and three to be elected by the Universities having Medical Faculties, leaving six to be elected by the general profession. Even this gives the homœopaths a predominance in the Council quite unjustified by their numbers, and with the diminished amount of work required from the Ontario Medical Council this should be a sufficiently large body.

Medical Education.

The question of medical education is at the present time receiving a considerable amount of attention, and both the

teaching and practice of medicine are passing through a period of evolution. In the United States medical education has been a subject of discussion for a number of years, and committees have been appointed by various societies, more especially the Association of American Medical Colleges, in conjunction with the Confederation of Examining Boards of the United States and the Council of Medical Education of the American Medical Association, to enquire into the equipment, entrance requirements and curricula of the medical schools.

In 1905 the Carnegie Foundation was established by Mr. Andrew Carnegie[1] to investigate the subject of University Education in general, and a special committee was appointed to consider medical education in the United States and Canada. The report of this committee and the recommendations of the Council on Medical Education of the Americal Medical Association[2] show that the most urgent indications are reduction in the number of medical schools, elevation and uniformity of entrance requirements, maintenance of well equipped laboratories with capable teachers, and clinical training in a hospital in intimate relationship with the medical faculty; that is to say, in a properly constituted teaching body, there should be a hospital under the direct control of that body. The report of the Carnegie Committee also emphasises the fact that the medical profession, both in the United States and Canada, is at present over-crowded by poorly trained physicians and surgeons.

At the meeting of the Council on Medical Education[3] held at Chicago on February 29th of this year, the Secretary reported that whereas in 1906 there were 170 medical schools in the United States, constituting half the total number existing in the world, the number had now been reduced to 120. This reduction is due to the closing of some badly conducted and imperfectly equipped schools and the amalgamation of others.

As regards entrance requirements, Dr. Colwell stated at the above meeting that 47 of the 120 remaining medical colleges now require that a year or more should have been devoted to physics, chemistry and biology, together with a four-year high school course. Twenty-nine colleges require a minimum of two or more years' work in a college of Liberal Arts, with a four-year high school course. Nine State Examining Boards have

now adopted preliminary requirements in excess of a four-year high school education. Of the 120 colleges, 79 are connected with Liberal Arts Colleges or Universities, but of these 33 only are in intimate relationship with Universities. During the last seven years the college terms have been lengthened, new methods of teaching adopted, more salaried teachers employed, more endowments secured, new buildings erected, better laboratories and laboratory equipment, and better clinical facilities provided. Several of the larger medical schools have been reorganized, have built teaching hospitals and adopted higher standards of education, and the teaching of medicine has now been placed to a great extent on a University basis throughout the United States.

As regards Europe, in London there is more clinical material available than in any other city in the world, and the conditions for teaching are most favorable, and in my opinion there is no place at which one can get a better training in the fundamental principles underlying the practice of medicine. This, together with the exceptional clinical facilities, makes London the greatest medical centre in the world. In the University of Berlin no senior professor practises medicine. The Universities, which are maintained by the State, pay salaries to the professors, surgeons and physicians, and also all expenses connected with the laboratories.

I am of opinion that, as education is a matter within the jurisdiction of the Provinces of this Dominion, it is the imperative duty of the Provincial Governments to see that a certain definite standard of medical education is maintained, the individual medical colleges retaining their charters only if they continue to provide this standard. It will be their duty to see that these colleges are provided with proper laboratory accommodation and facilities, and—what is perhaps equally or more important—a sufficiency of clinical material in hospitals connected with or under the control of the college.

Medical education attains its maximum efficiency only when it is based upon a good system of general education, and is supported by the scientific and literary atmosphere of a university. Three of the greatest advances in modern medicine are due to laboratory work, namely, the work of Faraday in physics, of

the Curies in chemistry, and of Pasteur in biology. Sir William Osler[4] thinks it advisable that this type of university work should be extended into our medical schools, and that we need "an active invasion of the hospitals by the universities." In the city of Toronto we now have what may be described as "an active invasion of the hospital by the university," in that the University of Toronto now has control of the Toronto General Hospital, thus making the latter to all intents and purposes the University Hospital. We have here what is generally recognized as the essential thing in the training of medical students, namely, the intimate connection with and active control of the hospital by the university. When our new arrangements are in working order we hope to be able to give our students a great deal of clinical work in the hospital, so that they may thus have an opportunity of acquiring that familiarity with disease processes in the living subject which is so essential as a qualification for their life's work.

Medical education in Canada has always been up to a high standard. But in this connection it should be borne in mind that, owing to the development of the preliminary sciences, such as physiology, pathology and biology, the work of the student has practically doubled in amount, and is continually increasing. In view of this increased demand on the time of the student a five-year course in medicine has now been adopted in all the leading Canadian medical schools, the final two years being devoted to practical work.

All writers on medical education emphasize the paramount importance of thorough training in practical work, with opportunities for the students to come into actual contact with patients. The efficiency of the practitioner, the welfare of the public generally, and the adequacy of the public health service, are all dependent upon the quality of the training given in the medical schools, and the ideal at which we are aiming is uniformity in the requirements and standards exacted by all the examining boards throughout the country. We trust that this happy result will follow the adoption of the "Canada Medical Act," establishing interprovincial registration, and a license which will enable the holder of it to practise in any part of the Dominion.

The "Canada Medical Act."

The "Canada Medical Act," which has for its object the establishment of a uniform standard of examinations and qualifications throughout the Dominion of Canada, was introduced in the Senate by Dr. Roddick in 1902. It was passed, but it was found impossible to bring the Act into operation at that time, owing to the fact that opposition was made by some of the Provinces on the ground that their interests had not been sufficiently considered.

Owing to Dr. Roddick's perseverance and devotion to the work in connection with this Bill, and that of a few others who co-operated with him, he succeeded in convincing the various Provinces that it was to their interest to pass this Bill, and consequently an amended Bill was passed in the 1911 session of the Dominion Parliament. I wish here to express my sense of the debt of gratitude which we owe to Dr. Thomas G. Roddick for the unprecedented services which he has rendered to the entire medical profession of Canada.

This amended Bill only became operative when a so-called "Enabling Clause" had been passed by every Province. All the Provinces have now passed this "Enabling Clause," Ontario being the last to do so. This means that now the "Canada Medical Act" is in operation, and it only remains for the Dominion Medical Council to be established in accordance with the terms of the Bill, which are briefly: That the Council shall consist of (*a*) three members, appointed by the Governor-General in Council, each residing in a different Province; (*b*) Two members representing each of the nine Provinces, to be elected by the Provincial Medical Council; (*c*) One member from each University or Medical College, which has power to confer degrees in medicine; and (*d*) Three members elected by the homœopathic physicians in Canada.

Osteopathy.

The Bill which was recently introduced by Dr. Jamieson, and which was withdrawn at the last session, contained a clause defining medicine, which it is to be hoped will be incorporated in a Bill which will probably be passed at the next Session of the Legislature. It is a great pity, as we all know, that this

was not defined by the Legislature many years ago, when the Council was established in 1867, and it is desirable that the profession should be thoroughly conversant with the terms of this Bill.

The Bill provides for the registration of any person who has matriculated in accordance with the requirements of the College of Physicians and Surgeons of Ontario, and holds a diploma granted by a School or College of Osteopathy that meets the requirements of the Ontario Medical Council and the Governor in Council. It also provides for the registration of persons who have been practising osteopathy in Ontario prior to the passing of the Bill, provided they hold such diplomas as meet the requirements of the Ontario Medical Council and the Governor in Council. It also provides that any person shall be held to practise medicine within the meaning of the Act who shall by advertisement, sign, or statement of any kind allege ability or willingness to treat diseases, or to prescribe or administer medicines or treatment of any kind for diseases, defects, deformities or injuries, but specifies that this section does not apply to the practice of dentistry, pharmacy, the usual business of opticians, vendors of dental or surgical instruments, apparatus and appliances, nurses, chiropodists, bath attendants or proprietors. Every person registered under this Act as a practitioner of osteopathy in the Province of Ontario shall be entitled to recover fees for professional attendance.

This amendment to the "Ontario Medical Act," which permits of the registration of osteopaths, is not such a monstrous thing as it seemed at first. I take the view that a man is justified in practising any pathy he wishes, provided he has obtained a sufficient knowledge of the anatomy of the human body, its physiology and the disease processes to which it is liable. It will be obvious to every sane man that such a knowledge is absolutely essential; for how can anyone attempt to treat a disease without understanding the nature of the disease in question or the normal physiological conditions?

At the present time the public is at the mercy of a large number of uneducated charlatans, whose work is not only of no value in any real disease, but is often of a highly dangerous

character. We have all met with cases in which this lack of knowledge has resulted disastrously to the unfortunate patient.

If, as is proposed in the Bill, those wishing to practise osteopathy must pass an entrance examination equal to that of any practitioner of medicine, and in addition pass a Primary and Final Examination, which would include all the essential subjects, substituting their pathy for medicine, we should have no objection to their being licensed by the Ontario Medical Council. In this way the public would be protected by requiring of osteopaths a sufficient knowledge of these fundamental subjects, which is absolutely essential before attempting to treat the sick. If, after they have passed these examinations, they still think there is any value in their particular pathy, we have no objection to their practising it. I would take a similar attitude towards any other pathy.

When the Ontario Medical Council was organized the homœopaths and eclectics were taken in and the same examinations prescribed for them as for regular practitioners. What has been the result? The eclectics have practically ceased to exist. Very few homœopaths have been taking the examinations, as is shown by the fact that at the present time only 48 are practising in the Province of Ontario, but unfortunately I am unable to ascertain how many there were at the time of the formation of the Ontario Medical Council.

The chief objection I have to the Bill is that it proposes to take in a number of graduates of osteopathic colleges without their having to pass any further examination. I think that a clause should be added, requiring all these men to pass an examination before being registered, and although we may, for the time being, have to accept qualifications which are decidedly less than those which will be exacted from future candidates, we shall certainly have made a material advance in securing for the public very valuable protective legislation.

In support of the contention that those who are practising osteopathy at the present time should pass an examination I should like to briefly refer to the Carnegie Report:—[5]

Amongst medical sectarians the Committee includes homœopaths, eclectics and osteopaths, all of whom admit in theory

that medical education should be based upon the fundamental sciences of anatomy, physiology, pathology and bacteriology.

It is stated that the catalogues of the eight Osteopathic Schools in the United States are a " mass of hysterical exaggerations, and fairly reek with commercialism." Entrance standards are conspicuous by their absence. In the catalogue of the parent school at Kirksville it is stated that an applicant will be accepted if " he pass examinations in English, arithmetic, history and geography," but he may be admitted even if he fails to do this. The Cambridge School (Massachusetts) states that " a diploma may be accepted or an examination required if deemed advisable by the directors."

Whatever his opinions may be on the subject of treatment it is essential that the osteopath should be trained to recognize and to differentiate between the diseases he professes to treat, and not one of these Osteopathic Schools is in a position to give the training in physiology, pathology, chemistry and bacteriology which " osteopathy itself demands." In none of them is there any effort to connect the " laboratory teaching with clinical osteopathy," and in none is there " anything approaching the requisite clinical opportunities."

In the eight Osteopathic Schools there are now over 1,300 students, paying about $200,000 annually in fees, and for this they " receive an education which is practically worthless."

All candidates who intend to practise surgery—whether osteopaths or not—should be required to pass a uniform examination in this branch of treatment. It is absolutely essential that all who undertake the treatment of disease, irrespective of the form of treatment they propose to adopt, shall be educated in such a manner as to render them capable of distinguishing between the various diseases which may come under their observation.

Public Health.

The rapid development of bacteriology, and the establishment of the germ theory of infective diseases, due mainly to the scientific investigations of Koch and Pasteur, have led to corresponding development in practical and preventive medicine. Recognizing the importance of this development in relation to public health, Senator Owen, of Oklahoma, introduced

a Bill in Congress about two years ago to provide for the creation of a Federal Department of Public Health, which was strongly supported by the American Medical Association and various other Medical Societies in the United States.

The object of this Bill was defined to be[6] "all matters pertaining to the conservation and improvement of public health, and to collect and disseminate information relating thereto." It also provided that the new Department of Public Health should include: (1) The Public Health and Marine Hospital Service; (2) Foods and drugs, from the Bureau of Chemistry, which is now in the Department of Agriculture; (3) Vital Statistics, now in the Department of Commerce and Labor.

An amended draft of the Owen Bill has recently been brought before the Senate,[7] which differs from the original Owen Bill, in that it provides for an independent health service, at the head of which will be a director appointed by the President, but who is not to have a seat in the Cabinet, whereas the original Owen Bill specified that the head of the department should be a physician, who would also be a member of the President's Cabinet. The Amended Bill provides for the appointment by the President, with the approval of the Senate, of three Commissioners of Health, to act as assistants to the Director, two of whom shall be skilled sanitarians and one a skilled statistician.

On March 22nd, of the present year, Senator Smoot brought a Bill before the Senate,[8] which contains practically the same provisions as regards the Federal Government, but varies essentially from the Owen Bill, in that it arranges for the public health service to be under the control of the Secretary to the Treasury, and to be managed by an Assistant Secretary, who shall devote the whole of his time to public health work, thus ensuring representation in the Cabinet. The Medical Bureau, including the present Public Health and Marine Hospital Service, is made the predominating Bureau, and it is proposed to transfer Vital Statistics to this Department.

I have referred to this contemplated legislation in the United States in order to show what is being done elsewhere in regard to public health matters. Many of us have felt for years that a Federal Department of Public Health should be created, with

a responsible Minister at its head, and representations were made to the late Government by the Canadian Medical Association along these lines, but no action was taken. I intend proposing a Resolution to this effect during the course of the meeting, urging the Dominion Government to give this matter early and favorable consideration.

Early in the present year the Academy of Medicine, New York,[9] appointed a Committee on Public Health, Hospitals and Budget, for the purpose of investigating existing conditions, and to give expert medical opinion upon various matters, including provision for contagious diseases, school sanitation and the use of public funds in the maintenance of public health, one of the most important being the consideration of the health of school children. The Committee is not to interfere in political matters, but to endeavor to give such advice as will be serviceable to the community as a whole. This will include attempts to educate the laity to minimize conditions which tend to the spread of occupational diseases, and to educate general practitioners in matters relating to municipal health, sanitation and hygiene. We might with advantage follow their example.

Division of Fees.

Considerable attention has recently been directed, more especially by the various Medical and Surgical Societies throughout the United States of America, to the prevalent practice of fee splitting, or the division of fees between consulting surgeons and physicians, or physicians and consulting physicians.

Judging from the papers which have recently been published, and the Reports of the Committees which have been appointed to enquire into the subject,[10] this reprehensible practice appears to have become exceedingly common. It is increasing to an alarming extent amongst the younger members of the profession, and has even been adopted in some cases by men of good standing, owing to the fact that it suits their convenience and that they find it profitable.

The division of the fee is accomplished by various methods, and is based on commercialism alone. It means nothing more or less than the payment by the consultant of a commission

to the general practitioner, with the object of encouraging the latter to continue to send his patients where he is most likely to receive a share of the money paid for relief or attempted relief, irrespective of the skill and experience of the consulting surgeon or physician in question. The practice is even more common amongst surgeons than physicians, and is carried on without the knowledge of the patient, who is ignorant that a portion of the money goes to the general practitioner who has recommended the surgeon.

There can be no question that it is a pernicious system, fundamentally opposed to the ethical traditions of the profession, and that it cannot be advocated by any honorable man. It represents a form of collusion between the consultant and the general practitioner, which is compromising and demoralizing to both parties, in that it is invariably practised without the knowledge of the patient, and is at the same time disadvantageous to the latter.

As regards the causes responsible for the prevalence of this evil, it is stated in the Report of the Committee of the Erie County Medical Society that the Committee was practically unanimous in the opinion that the principal predisposing factors in commercialism are the overcrowding of the medical profession, a low standard of medical education, and a lack of appreciation of professional ethics. The Committee also includes amongst the contributory causes contract practice and its inadequate remuneration, and the fact that the general practitioner is often under-paid. This state of things should be rectified in a legitimate manner, by educating the public to understand that, in view of the advances in medicine and surgery, and the consequent increase in responsibility and work necessitated by modern methods of diagnosis, the general practitioner is justified in demanding a larger fee in such cases. He frequently has to take his patient to a consulting physician or surgeon, and if an operation has to be performed he has to be present. It goes without saying that he should receive adequate compensation for such services, and it is unreasonable to expect him to spend his time in this way without remuneration. In spite of the increased cost of living, and the advances in medical and surgical science, the family practi-

tioner is still receiving the same compensation as his predecessors of two or three generations ago. If the public will compensate the family physician fairly and promptly for his services, and insist that all transactions between the physician and the consultant be carried on with the full knowledge of the patient, the cause and the possibility of this evil will speedily disappear.

The Committee also points out that the prospect of receiving a commission sometimes results in exaggeration of the necessity for operation, and thus leads to indiscriminate, reckless and useless surgery, performed in some instances by inefficiently trained and inexperienced surgeons. Although the general practitioner is assumed to recommend his patients to consult a competent surgeon, the possibility of receiving 50 per cent. of the fee may interfere with his discrimination.

It was suggested at the meeting of the Board of Regents of the University of New York, held on April 19th, 1911, that the legislature be requested to consider the advisability of prohibiting the consulting physician or surgeon from paying fees to another practitioner without making known the fact of such payment to the patient or the relative or friend acting on his behalf; and also that it might be advisable for the Board of Regents to announce that it will revoke the licenses of physicians or surgeons determined to have been guilty of this practice.

Dr. A. S. Draper[12] is of opinion that correction of the evil must come from within the profession itself by means of the local organizations, and that if this is not done the public will probably take the matter into its own hands with painful results.

The Academy of Medicine, Toronto, appointed a Committee to consider this question, and the following Resolutions were passed at the Annual Meeting on May 7th of this year:—

1. "That the payment of a commission to any person or persons who may be instrumental in influencing a patient or patients to apply for professional advice is wrong in principle, and detrimental to the best interests of our profession."

2. "That when two or more practitioners are engaged in a

case, the disposition of the respective fees shall only be made with the knowledge and consent of the patient."

3. "That we agree that the attending physician has often been inadequately paid for his services."

I would suggest that this matter be dealt with by this Association at the present meeting, and that a similar action be taken to that of the Toronto Academy of Medicine.

Progress in Surgery.

The last two or three decades have been a period of marvellous development and evolution as regards surgery, and there is no question that the chief factors to which this evolution is due are the discoveries of the bacterial origin of disease, of antiseptics, and the more recent development of asepsis.

I should like here to refer to the great loss which the medical world has recently sustained in the death of that distinguished scientist, Lord Lister, which occurred at Walmer, England, on February 10th of this year. Many of you will remember the pleasure we had in meeting that kindly and unassuming man, with his gentle face and wonderful personality, at the meeting of the British Medical Association in Toronto. His great achievements in the domain of medicine and surgery are well known to every member of the profession, and to his practical application of the discoveries of Pasteur we owe the fact that it has now become possible to secure the kindly healing of wounds without the suppuration which to the older surgeons seemed a necessary part of healing, and which made any operative measure extremely dangerous. Even in the cases in which recovery did ultimately take place it was accompanied by such complications as erysipelas, hospital gangrene and pyemia, which can now be avoided in practically all cases.

Another factor which has contributed to the reduction in the mortality of surgical operations is that in the majority of cases the surgon is now consulted at an earlier stage of the disease than formerly, when the risk attendant on many operations was so great that they were undertaken only as a last resource. We now recognize that in many cases delay entails considerably greater risk than immediate operation, and that prognosis is

often more favorable if the latter is undertaken at the earliest possible moment.

The above remarks apply more especially to what may be termed acute abdominal emergencies. The degree of perfection to which asepsis has now been brought renders it possible to open with safety the cavities of the body, and to expose freely the area of disease, thus enabling the surgeon to operate with greater confidence. The knowledge of surgical pathology thus acquired has resulted in a co-incident development of methods of diagnosis, and we have learnt that peritonitis represents only a late result in very various diseases. It has also led to more intelligent after-treatment, and intead of keeping the intestines at rest as long as possible after an abdominal operation, as was formerly the custom, the aim of the surgeon now is to obtain resumption of normal physiological and mechanical intestinal functions as soon as possible, and thereby to prevent the supervention of peritonitis.

Appendicitis.

I should like here to refer very briefly to the treatment of acute appendicitis. For many years this subject has been discussed freely in our medical societies, and different opinions held as to the proper time for operation, but at the present time surgeons throughout the world are practically unanimous in the view that the proper time to remove the appendix is immediately the diagnosis has been made.

I think it very desirable that the public should be educated to appreciate the fact that a diagnosis of acute appendicitis invariably calls for immediate operation; that no other form of treatment is of a curative character, and that delay is dangerous. Of course all we can do in the matter is to strongly advise operation. We cannot compel a patient to submit to operation, but in view of the great risk incurred by delay in such cases, it is most important that the public should be educated to appreciate the imperative necessity for immediate surgical treatment.

Blood Examination.

Within the last ten or twelve years much has been learnt in regard to the value of examination of the blood in acute surgical

diseases, and it has been extensively employed as an aid in the diagnosis of obscure suppurations, and more especially in differential diagnosis. The results of experimental and clinical work indicate that investigation of the blood, and above all determination of the percentage of polymorphonuclear leucocytes, although not in itself sufficient to definitely establish a diagnosis, may, when considered in relation to the clinical symptoms, be an important factor in the differentiation of various acute surgical diseases.

In addition to the value of blood examination in diagnosis, the presence of marked leucocytosis often indicates a hopeful prognosis, but the most conclusive results are obtained, both in regard to diagnosis and prognosis, when the total and differential counts are taken together, and considered in relation to each other and the clinical findings. The total count may be regarded as an index of resistance of the body to the infective agent, whilst the differential count indicates the severity of the infection.

Intravenous Anesthesia.

Improvement in the methods of inducing anesthesia has been an important factor in advances in surgery, inasmuch as it now results in much less functional disturbance and interference with the manipulations of the surgeon. Instead of being obliged to rely upon one method only, as was formerly the case, we have now a choice of many methods of inducing anesthesia, and can select that which seems to be most suitable for the condition with which we are dealing.

In this connection I may refer to intra-spinal anesthesia, which has been practised extensively abroad, and to some extent also in this country. A few year ago Bier[13] described the technique of intravenous local anesthesia, which has been found particularly useful in cases with pulmonary and cardiac complications. Bier injects novocain into the circulation, and under this method of anesthesia has performed various operations on the limbs, including resection of the elbow, resection of the knee-joint, and amputation of the lower part of the leg. He thinks there is not the slightest doubt that it is suitable for amputations of all kinds. More recently a method of intravenous general anesthesia has been suggested by Burkhardt of Münich,[14] which

appears to be free from the many objections to inhalation anesthesia, and I believe has a great future in store for it.

At the present moment the safest all round anesthetic for general purposes is undoubtedly ether, given by the open method. I may say that for many years I have been in the habit of insisting upon the use of ether as an anesthetic, feeling that it is much safer than chloroform or chloroform in combination with ether. I would further like to emphasize the very great importance of having the ether administered by a skilled anesthetist.

Brain Surgery.

The most recent advance in the surgery of the brain consists in operations upon the hypophysis cerebri, which have been undertaken for the relief of acromegaly, and have in several cases resulted in retrogression of the symptoms.

The Rontgen Rays.

Röntgenology is now highly developed, and has become one of the most valuable adjuncts to surgical diagnosis. It has also greatly contributed to render surgery a more exact science, as it gives us a clearer understanding of the condition of many of the cases which come under our observation, and in many instances also gives indications for treatment.

In fractures the Röntgen rays are of the greatest possible service, as we are able to ascertain by means of a skiagram whether or not the fractured portions of bone are properly adjusted. It is also most useful in disease of the bones, as it is capable of showing the most minute alterations in structure.

Great advances have recently been made in Röntgenology, as applied to the diagnosis of disease of the alimentary canal, and it has greatly increased our knowledge of its physiology and pathology. In this region it is second only to an exploratory laparotomy, and by enabling the surgeon to make an early diagnosis renders it possible to operate at a much earlier and more favorable time. The radiographs are taken after the administration of bismuth subcarbonate, which obstructs the rays, and is considered the most suitable preparation.

By this method displacements of the stomach can be determined with a greater degree of accuracy than by any other

means, with the exception of an exploratory laparotomy. The more recent methods of Röntgenology have rendered it possible to demonstrate the site of stenosis of the alimentary tract; to distinguish in some cases between functional and organic constriction; to observe the peristaltic action of drugs and the functioning of intestinal anastomoses; to determine the existence of visceroptoses and of diverticula. The X-rays have also been used in the diagnosis of pulmonary and other intra-thoracic conditions, and Rosenbaum[15] reports a case in which a diagnosis of miliary tuberculosis of the lungs was made, the skiagram showing numerous small tuberculous areas in both lungs.

Schurmayer[16] emphasizes the value of Röntgenopalpation of the abdominal viscera, which is practically manipulation of the organs under the guidance of the eye, and he considers it to be especially useful in the diagnosis of pathological fixation of organs.

Although an X-ray examination is of the greatest assistance in diagnosis, it should not supersede the older methods of accurate clinical investigation, but should be used in combination with them.

As a therapeutic agent, however, the X-ray has been very disappointing, and has frequently been attended with harmful results. It has been successful in the treatment of certain superficial forms of carcinoma, but in these cases a quicker and more satisfactory result would as a rule be obtained by the use of the knife.

Radium Treatment.

The exact value of radium in the treatment of disease is at present complicated by the question of expense, and it is, of course, possible that in cases in which small doses fail larger doses would be successful.

Dr. Louis Wickham[17], who has had considerable experience with this mode of treatment at the Radium Institute at Paris, has recently reported his results. He is of opinion that in the case of malignant growths, which are difficult to remove, intense application of radium previous to operation is beneficial, and may facilitate removal of the growth.

It is sometimes useful in the treatment of superficial lesions, such as rodent ulcer and epithelioma, but I have recently seen

a case of superficial epithelioma, in which it was positively injurious, and after six months' treatment it was necessary to remove the growth by operation. I have also seen cases of rodent ulcer which were in no way benefited by radium treatment, and required subsequent surgical removal.

It is of undoubted value in the treatment of certain vascular lesions, such as nævi, port wine stain, etc. Wickham considers it also of value in surgical tuberculosis and other skin lesions.

My feeling about it in malignant disease is that it should never be used where an operation is possible, but after the growth has been removed there can be no objection to its use for a time, in the hope that it may prevent recurrence.

That it should be used as a cure for cancer is an unfortunate mistake, and has brought radium into disrepute in many quarters. It is a great pity that the opinion has got about that radium will cure cancer, or that anyone should employ radium for the treatment of malignant disease where surgery is possible. I have met with a number of instances in which a great deal of valuable time has been wasted in the use of radium, the delay meaning that the growth was becoming inoperable.

In addition to the therapeutic use of radium, small doses of it have been found to stimulate the healing of wounds.

Thoracic Surgery.

In 1908 Sauerbruch devised a cabinet which rendered it possible to open the thorax freely, whilst respiration was kept up under the influence of either positive or negative pressure. This led to great advances in thoracic surgery, and many intra-thoracic conditions can now be dealt with in a way that was impossible a few years ago. Dr. Willy Meyer[18] subsequently constructed a cabinet which was an improvement on Sauerbruch's apparatus, in that pressure could be changed from positive to negative at the will of the operator, or both kinds of pressure could be used simultaneously. He describes this cabinet as the "universal pressure chamber."

In 1909 Meltzer and Auer[19] suggested a new method of artificial respiration under positive pressure, which they called intratracheal insufflation, and the very satisfactory results in curarised dogs led to its employment for intra-thoracic operations

in man. Subsequent experience has shown that in the Meltzer-Auer method we have a simple and apparently safe method of producing intra-pulmonary pressure, permitting of open operations upon the pleura and other intra-thoracic structures without the use of any cumbersome apparatus, and that, owing to these advantages, it is likely to supersede all the more complicated pressure cabinets.

Dr. Elsberg[20] has anesthetized about two hundred patients in this way at the Mount Sinai Hospital, New York, and states that the results are extremely satisfactory. The operations in which he has employed it include craniotomy, thyroidectomy, thoracic empyema, removal of tuberculous cervical glands, pulmonary operations, etc.

Operations upon the heart represent a comparatively new field of surgery, although an attempt was made by Farina in 1896[21] to suture a wound of the heart. In 1909 Vaughan[22] collected 150 cases of suture of the heart, with 35 per cent. cures. Eugene H. Pool[23] collected 77 cases, operated upon between 1909 and 1911, with 55 per cent. recoveries and 45 per cent. deaths. The use of differential pressure methods has greatly improved the prognosis in these cases, and recent literature on the subject indicates that the heart can be manipulated and treated surgically in the same way as any other organ in the body.

Amongst the most important contributions to the surgery of the heart and blood-vessels is the work of Professor Carrel, which was commenced in 1902 at the University of Lyons, France; continued at Chicago, and more recently carried on at the Rockefeller Institute, New York. He uses the Meltzer-Auer method of insufflation anesthesia, and as you will hear from his lecture this evening, has been able to perform successfully circular suture of arteries or veins, arterio-venous anastomosis, transplantation of segments of veins into arteries, patching of arteries with pieces taken either from veins or the peritoneum, the reversal of circulation in the thyroid, transplantation of the kidney from one side to the other in the same animal or to another animal of the same species, and more recently the transplantation of entire limbs. The results of his experimental researches indicate that we may in future be able to

cure many diseases of the heart and blood-vessels by means of surgical procedures.

Förster's Operation.

Surgery has again come to the relief of what has hitherto been regarded as a purely medical condition, namely, tabes dorsalis, and resection of the posterior spinal roots has been performed for the relief of the gastric crises met with in this disease.

The *rationale* of the operation is based on the assumption that in the various crises which occur in the course of locomotor ataxia, affecting the stomach, intestines, bladder or larynx, there are invariably three cardinal signs, namely, symptoms of motor, sensory and secretory irritation of the organ involved. In Förster's opinion sensory irritation is the primary condition, the other two being secondary. Förster and Küttner[24] operated on a patient suffering from tabes, the seventh to the tenth thoracic roots inclusive being divided. Pain and vomiting subsided, the appetite improved, and the patient gained in weight.

It has also been recommended for the spasticity which obtains in cerebral diplegia, and which is due to loss of inhibition from the higher centres, but far better results have been obtained in the lower than in the higher extremity. The immediate results are great diminution in or disappearance of the spasticity, and of spontaneous contractures and cramp, if present.

Osteoplastic Surgery.

During the last few years osteoplastic and cosmetic surgery has undergone remarkable development, and bone transplantation has recently been extensively employed in the correction of congenital defects and in replacement of bone which has been destroyed or removed by injuries or destructive diseases of various kinds.

Some surgeons, including Lexer, Enderlen and Königsberg, have successfully transplanted entire joints. Lexer[25] reports four functionally successful cases, in which portions of bone and adjacent joints were replaced by bone and cartilage. In two cases of synostosis of the knee, due respectively to suppuration and tuberculosis, the entire knee was resected, and a new knee-

joint, with a portion of the shaft of the tibia, implanted. These patients, four and seven months after the operation, experienced no pain on standing or walking, and could use the knee to a slight extent, passive movement to an angle of 45 degrees being possible in one case. Lexer usually procures his material from limbs amputated for senile gangrene.

In a more recent publication Lexer[26] reports several cases in which he has transplanted bone for cosmetic purposes, including formation of a nose or ear, correction of defects after operation for cancer of the face, transplantation of a portion of the scalp to supply a moustache or beard, and of a wedge of bone from the tibia to form a frame for the nose.

Kirschner[27] has had excellent results from transplantation of fascia from the iliotibial band of the fascia lata. He has used it chiefly to wrap around vessels or organs after suture, to close defects and reinforce hernia operations, to interpose between organs which have grown together, to make a sling for suspension of a displaced kidney or other organ, and for closing gaps in the dura. He also thinks it suitable as a substitute for tendons.

In the treatment of paralytic deformities of the extremities bone transplantation has been largely superseded by periosteal implantation of normal tendons, which is based upon the fact that normal muscle tendons will continue to functionate normally, even if the muscles pull in an altered direction. Lange of Münich arrived at the conclusion that it is inadvisable to impair and possibly sacrifice normally functioning tendons when the result is problematical, and therefore devised the method of implantation of silk, the results of which are the best that have been attained up to the present.

Alcohol Injections in Trigeminal Neuralgia.

From time to time many experiments have been made with the object of relieving the pain of trigeminal neuralgia and preventing its recurrence, these experiments consisting chiefly of the injection of chemical solutions and fluids of various kinds into or around the affected nerves. The procedure which has, up to the present, had the most satisfactory results is that of deep injections of a solution of alcohol into the trunk or

trunks of the nerves involved. If the injection is skilfully performed, and the needle punctures the nerve sheath, the alcohol instantly paralyses the nerve at the point of injection, and destroys its fibres. Resection of the Gasserian ganglion, which is an excedingly severe operation, is, however, the only effectual means of obtaining a permanent cure, but the alcohol injections may relieve the pain for a period of from six months to two or three years, and the great advantage of the procedure is the possibility of repeating the injections indefinitely at short intervals if the pain returns.

Ehrlich's Salvarsan.

The last three or four decades have been a period of extraordinary development in regard to the science of applied bacteriology, and more especially with reference to its value in the diagnosis and prognosis of infective diseases.

Syphilis is one of the diseases to which attention has been directed in this connection, and the recent advances in its treatment date from the researches of Professor Metchnikoff, who in 1903 succeeded in transmitting the disease to apes by inoculation, and thus proved that it was due to a specific infection. Further investigation along these lines led to the discovery in 1905 of the spirochete pallida as the infective agent, and to that of the Wassermann serum reaction in 1906.

Early in 1910 Ehrlich[28] made the assertion that the chemical compound dioxy-diamino-arseno-benzol, to which he gave the name of "606," is capable of producing "sterilization of the system." After making a large number of experiments in animals, Ehrlich sent samples of the drug to physicians in different parts of the world, in order that they might make a trial of its efficacy in the treatment of human syphilis. The immediate results were brilliant, but the intramuscular injections, which were at first used, had the great drawback of causing extreme pain and disability, and this method has been discarded.

Since this time the preparation has been greatly improved, chiefly in the direction of solubility, and it has successively become "606 ideal," "606 hyperideal," and lastly "Salvarsan."

Ehrlich subsequently recommended that the drug should be administered intravenously in small doses, and in some cases in combination with mercury. Many writers, including Sir Malcolm Morris,[29] employ this combined form of treatment, and are of opinion that until time has shown that the effects of salvarsan are permanent this is the more prudent course.

Although Ehrlich's idea that the drug would be capable of destroying every spirochete in the body has not been completely realized, and although it is no longer considered to be an infallible specific which is indicated in every case of syphilis, there is no doubt that it is the most powerful antisyphilitic remedy which we possess at the present time. It was at first feared that the administration of salvarsan might result in injury to the optic nerve, but Ehrlich states that he has not heard of a single case of blindness in connection with it, and Wechselmann, who has used it in over 1,200 cases, has not observed injury to the nerve in any one of them. A few cases have recently been reported, however, in which injury to the optic nerve was assumed to be due to this cause.

Etiology and Treatment of Cancer.

During the last few years extensive investigations have been undertaken by various scientists, including those carried out by the Cancer Research Commission in London, England, and at the Rockefeller Institute, New York, but up to the present no definite conclusion has been arrived at with regard to the etiology of cancer.

In this connection I should like to refer to the very valuable work in regard to cancer which has recently been done by Sir Henry Butlin, the great surgeon and pathologist, who died at London, England, on February 24th of this year. He had devoted special attention to diseases of the throat and tongue, and—strange to say—he died of cancer affecting the larynx.

At the last annual meeting of the Cancer Research Commission, held in London in July of last year[30], the Secretary, Dr. Bashford, stated that it has now been proved beyond the possibility of doubt that cancer—to begin with— is a local and not a constitutional disease. This fact contributes to render prognosis comparatively favorable, provided operation can be

undertaken at an early stage, whilst the disease remains circumscribed. Precise evidence has also been secured in regard to the existence of hereditary predisposition to spontaneous cancer. Its wide distribution throughout the entire human race and the vertebrates, even when living in a state of nature, and the fact that the only way in which it can be transmitted from one individual to another of the same species is by the implantation of living cancer, proves, according to Dr. Bashford, that it is not due to a common causal parasite. The almost invariable success of reimplantation into an animal of a portion of its own spontaneous tumor, and the almost invariable failure of implantation of any spontaneous tumor into other spontaneously affected animals, lead him to the conclusion that each tumor is individual, and genetically related to the particular organism in which it originates.[31]

In his Hunterian Lectures, delivered at the Royal College of Surgeons, London, England, about a year ago, the late Sir Henry Butlin[32] brought forward a theory of the intrinsic, as opposed to the extrinsic, origin of cancer. According to this theory, each cell in the human body is regarded as equivalent to an entire individual amongst the protozoa or other unicellular organisms, and the cancer parasite is taken to be in effect simply the cancer cell, which by a process of atavism has reverted more or less to the condition of the original protozoa, and has become in its relation to the normal cells in the body the equivalent of an intruding protozoan parasite. This cancer cell, to which he gives the name of *unicellula cancri,* is considered to be a completely independent organism, which has not entered the body from without, but has been generated within it, and which, instead of acting in harmony with the normal cells, acts in opposition to them, and thus produces anarchy and destruction.

Two objections have been made to this view, namely, that in the first place the cancer cell, so far as we know, undergoes no process analogous to that of fertilization, and that in the second place it is apparently incapable of growth apart from the organism in which it has primarily developed.

As regards the second of these objections, Dr. Peyton Rous, of the Rockefeller Institute, New York[33], has produced malignant sarcoma in fowls by the subcutaneous injection of the fil-

trate of a similar growth obtained from a bird of the same species. Professor Alexis Carrel and Dr. Burrows, also of the Rockefeller Institute, report a still more conclusive experiment, in so far as the human subject is concerned, in that they have made a successful culture from a sarcoma removed by operation from a female patient, although in this instance growth was less luxuriant than that of the fowl sarcoma.

Sir Jonathan Hutchinson[34] states that his experience indicates that the administration of arsenic, even if only for a short period, may result in predisposition to cancer, more especially epithelioma, and he thinks that it is probably also responsible for some cases of endothelioma and sarcoma. He suggests that the drug may act as a depressant to growth, and thus allow of the appearance, after a short interval, of degenerate forms of growth nearly allied to those of vegetation.

From time to time a large number of remedies have been suggested for the treatment of cancer, and some of them have been used with a certain amount of success. Several writers report cases in which they have employed serum prepared from cancerous material. Berkeley and Beebe[35] find that autogenous is more effective than stock serum, and think that this mode of treatment may be serviceable in the prevention of recurrence of malignant tumors after operation.

Dr. Coley, of New York[36], claims to have cured a few cases of sarcoma of the femur by injection of the fluid which bears his name. Sir Henry Butlin states that the Continental and English surgeons have not been equally successful in the use of this fluid, and although we have used Coley's fluid here a number of times, we have never seen a case in which it has been of value.

Acting upon the suggestion of Professor Ehrlich that the cancer cell might possibly be influenced by a specific drug, Wassermann and others[37] have found that a compound of eosin and selenium, injected intravenously into mice with malignant tumors, causes marked softening of the tumor after three injections; after four injections absorption of its liquefied contents, and in favorable cases its complete disappearance in about ten days. In the case of exceptionally large tumors, which tend to soften rapidly, the animals frequently succumb to the action

of the toxic material absorbed from the tumors. Autopsy indicates that the preparation has been deposited electively in the tumor, indicating its affinity for the cancer cells. It apparently has a destructive action upon the nuclei of these cells, whilst it does not affect the normal cells. In animals which have been kept under observation for months after disappearance of the tumors no recurrence has been noted, but if a tumor is only partially destroyed recurrence is rapid.

In the Report of the Cancer Research Commission, previously referred to, Dr. Bashford emphasizes the fact that nothing but harm can arise from the premature application to the treatment of human cancer of methods which have been found effective in modifying inoculation cancer in animals. A method which produced active immunity in inoculated cancer was tested in thirty-three mice with natural cancer. It resulted in no arrest of growth or dissemination, and did not prevent recurrence of spontaneous cancer after operation.

Duing the last thirty years or so there has been marvellous improvement in the results of operations for cancer, and extensive and early operation, with removal, as far as possible, of all the cancer cells in the body, has been attended with great success. In view of the fact that most of the writers on the subject agree in considering individual resistance an important factor, if not the chief factor, in the cure of cancer, it is obvious that even when the disease is sufficiently advanced to be no longer localized, and cancer cells have already migrated, it is highly desirable to remove the chief source of supply of these cancer cells, and thus assist the defences of the organism in their endeavors to re-establish normal physiological conditions.

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64 Bloor Street East, Toronto.

Society Proceedings

THE ONTARIO MEDICAL ASSOCIATION

THE thirty-second annual meeting of the Ontario Medical Association convened in Toronto on May 21st, and remained in session till about midday on May 23rd. The meetings were held in the new Medical Buildings, Queen's Park, under the presidency of Dr. H. A. Bruce.

It cannot be questioned that the 1912 meeting was by all odds the best, both in point of scientific interest and attendance, as also the spirit of *esprit de corps* displayed. President Dr. Herbert Bruce and the officers are to be congratulated upon the success of the meeting from every standpoint. The registration was not far from the four hundred mark, and at least 125 greater than at any previous meeting. Dr. Bruce occupied the chair with both grace and dignity.

The officers for the year just closed, apart from Dr. Bruce, were:

First Vice-President, Dr. F. W. E. Wilson, Niagara Falls; Second Vice-President, Dr. William Hall, Brampton; Third Vice-President, Dr. F. P. Drake, London; Fourth Vice-President, Dr. George Field, Cobourg; Secretary, Dr. F. Arnold Clarkson, 471 College Street, Toronto; Treasurer, Dr. J. Heurner Mullin, Hamilton; Committee on Papers and Business: Chairman, Dr. Graham Chambers, Toronto; Secretary, Dr. Herbert Willson, 633 1-2 Spadina Avenue, Toronto; Committee on Arrangements: Chairman, J. T. Fotheringham, Toronto; Secretary, Dr. O. A. McNichol, Toronto; Chairman of Sections: Medicine, Dr. W. P. Caven, Toronto; Surgery, Dr. A. Primrose, Toronto; Ear, Eye, Nose and Throat, Dr. G. Boyd, Toronto; Obstetrics and Diseases of Women, Dr. F. Fenton, Toronto; Pathology and X-ray, Prof. Leathes, Toronto.

The papers read were somewhat fewer than usual, the general idea being that by there being fewer papers and more clinics

the greater would be the interest taken and benefit derived. Almost all of those who promised papers were present, the principal exception being Dr. W. A. Turner, of Edinburgh, who found it impossible to get away. On the Tuesday, the forenoon was devoted to the Symposium on Graves' Disease, in which Dr. W. T. Connell, of Kingston; Dr. Marquis, of Brantford; Dr. Olmsted, of Hamilton, and Dr. Shillington, of Ottawa, took the principal part. All who attended this session voted it as being one of the best and most instructive they had listened to in many years.

The Address in Medicine, from the pen of Dr. William Aldren Turner, of Edinburgh, who is now physician to and lecturer on Neurology at King's College Hospital, was read by Dr. J. T. Fotheringham, of Toronto. It was a masterly piece of work and was listened to with the closest of interest. In the afternoon the meeting broke up into Sections, Medical, Surgical, and Obstetrics, the following being the different programmes, and which were carried out as nearly as possible:

MEDICAL SECTION.

1. Artificial Pneumothorax in the Treatment of Pulmonary Tuberculosis—Dr. Angus McKinnon, Guelph.
2. Tetanus—Dr. A. Moir, Dunnville.
3. Observations Relating to Diet in Tuberculosis—Dr. Kendall, Gravenhurst.

SURGICAL SECTION.

1. Result of Experimental Work on the Hydrostatic Pressure in the Common Bible Duct—Dr. E. W. Archibald, Montreal.
2. Prostatectomy—Dr. W. J. MacDonald, St. Catharines.
3. Some Experiences With Radium—Dr. G. Sterling Ryerson, Toronto.
4. Difficult Kidney Cases—Dr. W. Oldright, Toronto.

SECTION IN OBSTETRICS, GYNECOLOGY, AND PEDIATRICS.

1. Cesarean Section—H. O. Howitt, Guelph.
2. Fibroids in Pregnancy—K. C. McIlwraith, Toronto.
3. Anomalies of the Genital Tract—F. W. Marlow, Toronto.
4. The Action of Drugs on the Uterus—I. Sharpe.
5. An Unusual Case of Double Dermoid—F. A. Cleland.

The evening was given over to the President's Address (and

which we reproduce in this issue) and an illustrated lecture on "Experimental Researches in the Surgery of the Blood Vessels and Transplantation of Tissues and Organs," by Professor Alexis Carell, of the Rockefeller Institute, New York. We congratulate the President on his splendid Address, and which should be read by all who did not hear it delivered. The Address showed an immense amount of work and thought, and was most comprehensive in character. Professor Carell's address we had hoped to give our readers in this issue, but it was delivered *viva voce*, and was not in manuscript form. Professor Carell has been engaged in some most intricate work at the Rockefeller Institute for some years past, and it can be safely stated that nothing more scientific and yet startling has been given before any medical association as was delivered by Professor Carell before the Ontario Medical Association at its thirty-second annual meeting in Toronto. He dealt with the transplantation of organs and tissues and illustrated his paper by means of a series of lantern slides, showing the technique of operations and the results obtained.

He said that he had undertaken the experiments with a view to ascertaining whether it would be possible to transplant entire organs and limbs. He said he had removed both kidneys from a dog and had, after 50 minutes elapsed, replaced one of them. The dog lived for two years and a half and then died from intestinal disease, in no way resulting from the operation. Professor Carell exhibited pictures of cats which had been equipped with the kidneys of other cats. In the case of one of these animals the operation had produced a hardening of the arteries, and it had died of "acute old age." A hind leg from one dog was grafted upon another with perfect success.

Professor Carell told of successful transplanting of veins and of the "patching of arteries with portions of veins." In one case Professor Carell cut the thoracic aorta of a dog and inserted a portion of a vein. The animal lived for two years, and then died as the result of an accident. Professor Carell spoke upon his experiments for the purpose of preserving alive skin and tissue for use in operations.

Wednesday forenoon was devoted to Clinics at the Medical Building, among the cases shown being:

In the medical section were shown leprosy, heart block, disseminate sclerosis, paroxysmal tachycardia, double Charcot's joint, chondrodystrophic dwarf, Mongolian idiocy, syphilis, syringomyelia, various anthritides, pernicious anemia with combined sclerosis, lupus vulgaris and lupus erythematosus.

In the surgical section: Empyema, tubercular peritonitis, intestinal obstruction, hydronephrosis, pyonephrosis, renal calculus, carcinoma of the breast, sarcoma of the breast, sarcoma of the femur, cerebellar abscess and cerebellar tumor.

In the section of the eye, ear, nose, and throat: A number of cases, specimens, etc., of sarcoma of the larynx, sequestra of both labyrinths, with patient, lenticular charges in pernicious anemia, cerebral abscess with recovery, improved tonsil forceps, demonstration of gastroscope, etc.

In the section of obstetrics, gynecology, and pediatrics: Cases in pediatrics, demonstration of technique in obtaining blood cultures in cases of infection, pathological specimens illustrating uterine conditions.

There was also a capital exhibit of X-ray work by Mr. Fenner, and a laboratory demonstration in pathology by Professor Leathes.

At 12.30 o'clock there was a complimentary luncheon given in the Medical Building, tendered to members of the association by the City Council.

In the afternoon the address in surgery was delivered by Dr. George W. Crile, professor of surgery at the Western Reserve University, Cleveland, O. The subject of the address was "Anoci Association, a New Principle in Operative Surgery."

With the aid of lantern slides Dr. Crile illustrated the physical conditions among patients which tend in a very large measure to make operations fatal. He advocated the administration of anesthetics by women, as humanity had more confidence in the sincerity of women's intentions than in men's. This caused a general laugh, but he declared the statement to be well founded on fact.

Dr. Crile showed a series of slides where a mental condition created by fright or other circumstances was such as to make the patient a "bad risk" for operations of any kind. He believed that mental anxiety had more to do with the failure of

operations than many believed. He advised care and the adoption of the most modern methods and appliances for the successful conclusion of operations.

Needless to say, the auditorium was crowded during Dr. Crile's address, and in itself amply repaid those who came from out of town to attend the O. M. Association meeting. We hope to reproduce at least a full abstract of Dr. Crile's lecture in an early issue of THE JOURNAL.

After the address certain miscellaneous business was discussed and reports of different committees received. The principal report received, and which caused considerable comment, was that of the committee appointed the day previous to investigate certain charges against Gravenhurst Sanatorium and the alleged destruction of cultures and other biological products, representing a great deal of work on the part of Dr. Caulfield, who, till recently, was in charge of the department of scientific investigation in the National Sanatorium Association. *Until we receive both sides of this terribly unfortunate occurrence we prefer to withhold comment.* The committee appointed to take evidence in the case introduced and succeeded in carrying the following resolution:

Resolved, That this association, representing the profession of Ontario, desires to place on record its emphatic condemnation of the destruction of the cultures, extracts and other biological products, representing many months' work of the physician in charge of the department of scientific investigation in the National Sanatorium Association.

That a copy of this resolution be sent to each member of the Board of the National Sanatorium Association.

We here take occasion to invite both Dr. Caulfield and the National Sanatorium Association to present their respective sides of the case for publication in our next issue.

From 5 to 7 o'clock on Wednesday President Dr. H. A. Bruce gave a most enjoyable garden party at his beautiful home on Bloor Street east. The rain ceased about noon, and permitted of a large attendance, including that of His Royal Highness the Duke of Connaught, who honored the association with his presence. In the evening the annual dinner was held at McConkey's. Every place was filled, and the event was a most delightful one,

marred by a rambling speech, interspersed with most uncalled-for vulgarity from Dr. Mackid, president of the Canadian Medical Association. Dr. Mackid came to the dinner, so he said, to invite the members of the Ontario Medical Association to attend the meeting of the Canadian Medical Association, to be held in August at Calgary. Whether Dr. Mackid realizes how much he disgusted his audience we leave to him to judge. Of one thing he had better rest assured, and that is, that in this day of enlightenment such stories at a dinner table are not permissible (in Ontario, anyway), and we don't believe they are, except in the less populated districts, out west. We trust that as president of the Canadian Medical Association he will be good enough to refrain from so far forgetting himself, realizing, in a measure at least, the momentary dignity that his office demands of him, during his occupancy of the chair at Calgary. We regret not being able to reproduce in full the addresses delivered at the dinner by President Falconer, Ven. Archdeaccon Cody, and others, though the Hon. Justice Riddell has favored us with the following outline of what he said that evening.

The Sister Professions.

"Mr. Chairman and Gentlemen,—For your sakes I regret that the learned gentleman who was to reply to this toast on behalf of the Legal Profession has found it impossible to be here, and that, therefore, I have, almost at a moment's notice, been called upon to speak. My learned friend would have done justice to the subject such as I cannot expect to do. But on my own account I must say that I am glad, as I always consider it a very great privilege, to meet my brethren of the Ontario Medical Association (applause), and particularly upon occasions like the present, for I know that in addition to "the feast of reason and the flow of soul," the old prophecy will be fulfilled, and there will be "a feast of fat things (I have no reference to my friend Dr. King) (laughter), a feast of wine on the lees, of fat things full of marrow, of wine on the lees well refined." No matter how philosophical a man may imagine he is growing with advancing years, he never—or hardly ever—grows out of a taste for a good dinner, well served amid congenial company (much laughter and applause).

I thank you for the kindly references to the profession I have the honor to represent—though one of His Majesty's Justices, I still claim to be a lawyer. I admit there might be difficulty in persuading my judicial brethren, and still more some of the members of the bar, of the justness of this claim; but then, you know, lawyers differ—like doctors (laughter).

At a meeting of another medical society some few months ago, in a little address, I ventured to draw a comparison between the two professions somewhat in the following manner.

The two professions have the same object in view, the good of the public. That in the performance of the duties cast upon them the members of the professions also benefit themselves is wholly proper and right. It is part of the eternal fitness of things that one doing good to another incidentally does good to himself. It is cast up as a reproach sometimes that lawyers practise for money. No one has yet disputed the maxim, "The laborer is worthy of his hire," and the members of these two learned professions do not stand alone. Does the merchant keep open his shop simply for the advantage of others? the farmer plow and sow and reap just that his country may have more grain to export? Is the manufacturer wholly altruistic? And has not even the newspaper-man been known to charge thirty cents a line for his "reading notices"? It is said that when the child of a minister was asked whether his father was going to accept a call to a larger church with a larger salary, he answered, "Well, pa is still praying for guidance, but ma is packing up" (laughter). The noble examples in history and poetry do not in reality preach a contrary doctrine. Take that best known—"The chieftain to the Highlands bound," who cried

> "Boatman, do not tarry;
> I will give you a silver pound
> To row me o'er the ferry,"

was told indeed by "that Highland wight,"

> "I'll go, my chief, I'm ready;
> It is not for your silver bright,
> But for your winsome lady."

But the poet, who was a Scotsman, and consequently, as Dr. Falconer will tell you, could not tell a lie, does not venture to say that that same Highland wight did not have in his sporran that very silver pound before the boat left the dock. If, false to his blood, he did omit this trifling formality, he was different from his countryman spoken of the other day in *Punch,* who said to the passengers upon his ferry-boat, when the storm became dangerous, " There's nae sayin' what may happen; sae Aw'll juist tak' yer fares noo " (laughter and applause).

Jesting aside, I have never, after nearly thirty years at the Bar and on the Bench, heard of an instance in which anyone having even an arguable case could not have it brought before the courts and pressed with all due skill. And it is unthinkable that a doctor would refuse his assistance to an injured person because he was not sure of his pay (applause). We have our little flings at each other—the lawyer talks of the doctor's failures lying six feet below the ground; the doctor counters by a reference to the lawyer's, six feet above. When the doctor laughs at the lawyer pumping up tears before a jury and charging $100 a day for doing it—the lawyer retorts, " A trial is a major operation (laughter); how many doctors will take less than $100 for a major operation if there be more available? Pump up tears! What would anyone think of a doctor who would not pump up tears—or anything else—if it would or might help him to win out against the grim antagonist, Death?" (applause and laughter). Was it Huxley who compared the physician to a chess-player? The physician has opposite him an antagonist who must some day win the decisive game—that unseen player watches every move, he makes no haste, he plays fair, but while he makes no mistake himself, he inexorably exacts the full penalty for every mistake of the physician—and the physician does not know all the rules of the game.

The lawyer also plays a game; his antagonist is fallible as himself, but sometimes may fail to exact all the penalty to which he is entitled, and should know no more than his opponent of the rules of the game.

So I went on comparing the professions—but I notice that I was not asked to dine again by that society; and I think I

shall not say anything more about my own profession, lest a worse thing befall me, and I be excluded from this Association as well (laughter).

Let me, with all due humility, say something about your profession—and this I do with your good at heart.

Highly as I regard the medical profession in Ontario, I am not at all satisfied with you—indeed, I may say I have no patience with you.

For one thing, you wholly neglect to dress properly—no one can tell a doctor from an undertaker except by the little black bag (laughter), and that does not differentiate him from a piano-tuner (laughter and applause). Why not go back to the old distinctive garb—the three-tailed wig, velvet coat with stiff skirts and large cuffs, buckled shoes and silk stockings (laughter)? And a cane, long and gold-headed—and with a hollow handle for carrying disinfectants—not stinking carbolic acid or iodoform, but rosemary of sweet scent and pungent camphor? Has not the College of Physicians in London even yet the identical gold cane carried successively by Radcliffe, Mead, Askew, Pitcairn, Baillie?

Now, could anything attract to the doctor more attention than such a garb, especially if he rode in a gilt carriage with two running footmen? (laughter).

You know, advertising always pays, whether it be of the grosser type adopted for Lydia Pinkham's splendid preparation and Dr. Williams' Pink Pills for Pale People, or the more quiet and subtle form of the modest bulletin telling of the progress to the grave of some one much in the public eye (laughter and applause). No, I do not mean quite that! They sometimes do get better (continued laughter).

And, too, as Coleridge says, "He is the best physician who is the most ingenious inspirer of hope." How could anyone despair if such a lordly, such a gorgeous vision appeared by his bedside? (laughter).

Then, again, you do not bleed enough. (Let me not be misunderstood: I am referring to phlebotomy, not balantiotomy—bleeding produced by section of the vein, not of the purse—of your success in the latter I, of course, know nothing) (laughter). Now, I do not suggest that you should put pots of blood in your

office window to advertise your art, as the barber-surgeons used to do, at least in London—but " it stands to reason " that bleeding is an excellent preventative of disease as well as a cure. In olden times, every gentleman and most ladies who were in good health and wished to remain in good health, were bled at least five times in the year, i.e., in September, before Advent, before Lent, after Easter and at Pentecost. This incidentally kept them posted on the feasts of the Church (laughter and applause). With a sick man, sick of anything, from falling sickness to *le mal de Naples,* bleeding was the first and, alas, often the last " intention."

Did not Dr. Lettsom, who was the president of the Philosophical Society of London, and whose practice brought him in £10,000 to £12,000 per annum—he lived toward the end of the 18th and the beginning of the 19th century—himself say:

" When patients sick to me apply,
I physics, bleeds and sweats 'em;
If after that they choose to die,
What's that to me?
I. Lettsom." (laughter).

And then your outlandish medicines! You get iodine from seaweed, opium from poppies, quinine from Peruvian bark, and you neglect the medicines that lie at your very doors. For instance, the sovereign virtues of the human skull are almost wholly unknown and never appealed to—a perfectly marvellous remedy in cases of epilepsy. Now, of course, all skulls are not of equal value—common sense tells us that; you will, of course, find the skull of one who has died a natural death good for little or nothing, because it stands to reason that the essential spirit has been dissipated or consumed by the disease; but if you want a first-rate article get the skull of one who has died a violent death—one hanged preferred. Then you will get essential spirit for your life—and for your patients' (laughter and applause). You may either scrape the skull and administer the scrapings to the epileptic, or you may prepare an essence or spirit from it, and apply this. And such scrapings, essence or spirit are very useful in hemorrhage as well (laughter), and are a proved preventive against scrofula (laughter).

It is unfortunate—more than that, it is a shame— that the

drug-stores no longer keep real Venice Treacle—*theriacum Venetianum*. Now, that splendid remedy was made of vipers, white wine and opium, spices, liquorice, red roses, tops of germander, juice of rough aloes, seeds of treacle mustard, tops of St. John's wort, and some twenty other herbs, mixed with honey into an electuary. It is not really the fault of the druggists—it is not prescribed now, and so it does not pay to keep it. Did the modern school of physicians but know its many virtues it would be found in every drug store, not to mention the department stores, Eaton's and Simpson's. One would naturally think that anyone would know that such an essentially nasty mixture must be good for most things, but since the spread of Hahnemann's infinitesimals, physicians seem to have lost the sense of the healing value of sheer nauseousness (laughter and applause).

And then drink! Why, you make men, grown men, drink water! You know what Sir Henry Maule said about water. A tipstaff approached him when a jury were out considering their verdict, and said, "Your Lordship, the jury would like a drink of water." The learned judge glared at him and said, "You have been sworn to keep the jury from meat and drink until they agree. Water is not meat; I don't call it drink: you may give them a pailful" (laughter). Now the physicians of the olden time knew better—they gave gallons of sack and other wines. When they had a wounded patient they took aristolochia, geranium, galingal and other herbs, mummy and certain other drugs, and steeped them in wine (and lots of it), and gave that to the wounded man in bucketfuls. Why, you don't even use mummy!! (laughter and applause).

You seem, also, to have lost all sense of the great value of amulets and charms. Now, everyone knows that a live snail sewn up in a bag and worn round the neck is an excellent antidote for ague; the ordinary man on the street knows that a horse-chestnut in the left-hand trousers pocket will keep away rheumatism (laughter). Passing a child with the whooping cough under a donkey will generally cure; but if you want something absolutely certain, put a hairy worm or caterpillar into a flannel cover and that around the child's neck, and as the creature wastes away and dies, the whooping will depart. And surely

that stands to reason! For is it not something like a hairy caterpillar which must be the cause of the tickling cough. and is it not certain that what hurts will also cure? Is there not a whole system of medicine erected upon the principle, *Similia similibus curantur?* and do we not all (excepting, of course, the President of the University and the Venerable the Archdeacon) in the morning after the night before take a hair of the dog that bit us? (Shouts of laughter.)

At the last dinner of medical men that I was privileged to attend, a magistrate was bemoaning the passing away of the old family physician, who came in and looked at your tongue, felt your pulse, shook his head, and then went out to the dining-room and took a drink with your father (laughter). I was foolish enough to rise and say, " Thank God for the disappearance of the greatest fraud in the world. Thousands of skeletons of young children are lying in the cemeteries which should be the frame of stalwart men and handsome women but for the ignorance and carelessness of the much-lauded old family physician, too lazy to keep up with the advance of his science, and too dishonest and greedy of gain to give way to those trained, or at least skilled in modern methods " (applause).

Mea culpa, mea culpa, mea maxima culpa! I now see the error of my ways. *Stare super vias antiquas* will hereafter be my motto—get back to the old practice and methods, shun innovation as a plague, and be not so conceited as to imagine that you know better than your fathers, in the good old times .

If anything I have said will help to bring you again to the true way, I shall be amply repaid (laughter and applause)."

The subject chosen by Archdeacon Cody and strongly urged by him was the necessity for the three professions of the church, the law, and medicine standing together for the unification of Canadian national spirit. "We must stand together," said the Archdeacon, "against the worship of Mammon. The members of the faculty of law, of medicine, and of theology should proclaim the eternal value of things unseen. The most insidious evil which threatened modern civilization to-day was secularism and materiality. Civilization was only safe if accompanied by a vision. "The heart and core of your profession is service and sacrifice."

Principal Falconer's address was equally dignified, and a treat to those who listened.

On Thursday, May 23rd, clinics were given at the General, St. Michael's, Grace, and Western Hospitals, and at the Asylum, Queen Street, where interesting cases of various kinds—medical, surgical, gynecological, and mental—were shown by the members of the staffs.

Through the kindness of the president and directors of the Ontario Jockey Club complimentary badges were issued to members of the Ontario Medical Association and their wives for the races at the Woodbine on the afternoon of May 23rd.

At the same time the various golf clubs of the city also extended their hospitality to members.

The following officers were elected for the coming year: President, Dr. Charles MacGillivray, Port Hope; First Vice-President, Dr. A. T. Shillington, Ottawa; Second Vice-President, Dr. Taylor, Goderich; Third Vice-President, Dr. W. T. Park, Woodstock; Fourth Vice-President, Dr. J. H. Hare, Cobalt; Secretary, Dr. F. A. Clarkson, Toronto; Treasurer, Dr. J. H. Elliott, Toronto.

CANADIAN MEDICAL ASSOCIATION

The forty-fifth annual meeting of the Canadian Medical Association will be held at Edmonton, Alta., August 10th to 14th. It is expected that the first day, being Saturday, will be devoted to business. The scientific part of the programme will begin on Monday morning and occupy the three days—Monday, Tuesday and Wednesday. At the conclusion of the meeting the G. T. P. offers an excursion to the famous Yellow Head Pass.

While it was at first thought that one day of the meeting should be spent in Calgary, that idea has been abandoned since. A visit to Calgary may precede or follow the meeting in Edmonton. Everything goes to show that a splendid programme of papers will be ready, and the proverbial hospitality of the West is shown in the numerous arrangements already made for the amusement and the comfort of the visiting members.

As to railway rates, the Standard Convention Certificate Plan will be in force from all points in Canada, that is, the rate will be single fare, plus 25c. for the return trip. Members are urged to ask from their local station agent for the Standard Convention Certificate Plan, which will be honored for ticket for return trip. It is necessary that a certain number of certificates be secured before the rate can be valid. It would be wise, also, to secure sleeping-car reservations early.

Those members who desire to go on to the coast or return by one of the United States routes can secure summer tourist rates, which are very low.

The meeting in Edmonton offers an excellent opportunity to men in the East to see the West economically, and at one of the most favorable times in the year.

SUMMARY OF THE MEETING OF THE CANADIAN ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS, HELD AT TORONTO, MAY 20-21, 1912

THAT the crusade against consumption in Canada is no mere effervescent fad, but something that has gripped the attention of a large number of Canada's best men and women, was evidenced by the character of the Twelfth Annual Convention of the Canadian Association for the Prevention of Tuberculosis, held in Toronto on May 20th and 21st.

Among those who gave papers and took part in the discussions were the President, Professor Adami of McGill University, Dr. Herman Biggs, Medical Health Officer of New York City; Dr. Frank Wesbrook of the University of Minnesota, Sir James Grant, and a number of the most active workers in this field in the Dominion.

His Royal Highness the Duke of Connaught, who is Honorary President of the Association, honored the convention with a personal letter, in which he said: "I am sure the thoughts of others are often turned, as are mine, to the thousands of children born in Canada, and who immigrate every year, and that others wonder, as I do, how many of these little ones are doomed simply for the lack of fresh air and pure milk."

The general policy of the Association, as pointed out by the President, has always favored local responsibility and local institutions rather than large and widely scattered ones. In this movement the Province of Ontario has led the way in Canada, and has materially assisted by granting one-fifth the initial cost of building up to four thousand dollars and an additional maintenance grant of three dollars a day per each patient. Two other provinces (Nova Scotia and Alberta) are now following this method.

Dr. Biggs in his address brought home with striking force the truth that the health of any community is a purchasable commodity and that a community determines its own health and its own death rate. In this he was able to show the decrease in death rate from various diseases in New York City by preventive measures.

Dr. Wesbrook advised that sanatoria should not be erected as monuments, but might better be built as workshops, and that the less money put on them in the way of expensive ornamentation the more there would be left for the work of the institution where it was most required.

Mrs. Adam Shortt read a splendid paper on "Some Social Aspects of Tuberculosis," in which she blamed the apathy of the governments to two giants, naming them "Commercial Interests" and "Political Expediency."

An interesting discussion took place over the question of rest and exercise in the treatment of tuberculosis. The general opinion seemed to be that the pendulum, as is usual, has swung too far from absolute and prolonged rest, resulting too often in a tendency towards chronic invalidism, to too much exercise and consequent breakdown. The value of expert medical supervision was pointed out and the advantages of a middle course generally favored.

The report of the Executive Council showed a considerable advance all along the line throughout Canada during the year. More advanced legislation, new sanatoria, dispensaries and better provision for advanced cases in various centres.

Altogether the progress of the campaign throughout Canada is very promising. Although we may have as yet but a "five per cent. equipment," it is far better than the "one-half per

cent. equipment'' of ten years ago, and this improvement is due in a large measure to the interest created in the subject by popular education. Ten years ago there was but one institution in Canada for the tuberculous, with accommodation for less than one hundred patients; now there are over twenty institutions, with a total accommodation for over one thousand. Ten years ago there were but two societies; now there are over one hundred local societies in Canada. Then we had no dispensaries or visiting nurses; now there are over a dozen of the former and visiting nurses in many towns and cities throughout the Dominion. It must not be supposed, however, that hospitals, sanatoria and dispensaries, however necessary, are sufficient weapons against tuberculosis, for, while the proper care of the tuberculous is of the utmost importance, and the segregation of advanced cases imperative, yet consumption cannot properly be controlled until we improve those conditions favoring the spread of the disease.

We must have pure food, water and clean milk, proper ventilation and light in the homes, schools and workshops; and unsanitary conditions, so prevalent in many of our cities and towns, as well as on our farms, must be improved, and better housing conditions must prevail if our present great annual death rate from tuberculosis in Canada is to be materially and permanently cut down.

Geo. D. Porter, M.B., Secretary.

Obituary

DEATH OF DR. JOSEPH LANE

Joseph Lane, M.D., aged 66 years, died June 7th last. The doctor had been ailing since Easter, but was about as usual until the day previous to his death. He was a graduate of Queen's University of the year 1875, and commenced the practice of his profession in Mallorytown, in that year. He represented Division 17 in the Ontario College of Physicians and Surgeons since 1898; President 1910-11. The funeral, which took place from his late residence in Mallorytown, June 9th, was largely attended.

DEATH OF DR. DANIEL CLARK

Dr. Daniel Clark, former Superintendent of the Toronto Asylum for the Insane, died at his home, 375 Huron Street, on June 3rd, in his 78th year. Since his retirement from the Asylum, seven years ago, Dr. Clark's health has not been good. He was affected with kidney trouble, which reached an acute stage four years ago and rendered his limbs practically useless. For the past four months he had been unable to leave his bed.

Few men have attained to a wider personal friendship than Dr. Clark. During his thirty years of superintendency of the Asylum Dr. Clark made a splendid official and, although a Liberal in politics, it was with reluctance that his resignation was accepted in 1905. Two years prior to this he had been granted a leave of absence because of ill-health, and after the death in 1904 of his wife, to whom he was very devoted, his strength failed rapidly.

Few better examples of what may be achieved under adverse circumstances by indomitable pluck and the exercise of untiring physical and mental activity, coupled with natural ability and

the cultivation of studious habits, could be found than was exhibited in the life of Dr. Clark. His record shows to what honorable distinction a man may win his way by honest toil and application.

He was born in Granton, Inverness-shire, Scotland, on August 29th, 1835, his father being Alexander Clark, a native of Morayshire, and a farmer by occupation. His mother was Anne McIntosh (or Riach, in Gaelic), and was born in Banffshire. In 1841 the family came to Canada, and settled at Port Dover, where the young man remained till 1850.

Selected Articles

SUN YAT SEN

The remarkable revolution in China, which is apparently transforming that slumbering giant of the nations into a republic, was undoubtedly inspired by our own "experiment" in self-government. This fact, however, is significant and a reason for hope: Behind it is a *man*—this man a quiet, insistent, self-contained and constantly acting *power*. Sun Yat Sen, the recently elected president of the provisional republic, is a physician; more than that, he is a Christian physician. To him, more than to any other individual, is due the great upheaval which threatens to drive the Manchu from the throne.

A brief study of the life of Sun Yat Sen helps us to understand the character of the revolution. He was born forty-four years ago in Hueng-Shan, and is the son of a farmer who had been converted to Christianity. In his boyhood he went with his mother to Honolulu, where an elder brother was in business. There he attended mission schools, and finally studied in an American college. Thus he became familiar with the English language, which he is said to speak fluently, and this explains why he is conversant with the ideals and spirit of American institutions.

Sun Yat Sen then returned to his native land, where he took up the study of medicine. After five strenuous years he was graduated from the Hong-Kong College of Medicine for Chinese, and his diploma (the first of the school) was handed him by Doctor Kerr, the American missionary, who was at the head of this institution. Whether he was ever actively engaged in practice we are unable to say.

During his student days, Sun Yat Sen became interested in the reform movement, and was one of the leaders of the organization in Hong-Kong. At that time a small group of educated young men banded themselves together to work for

emancipation from the thoroughly corrupt Chinese dynasty. The natural force of character of the young medical student made him the leader of the local, and later of the national, movement; and he has held that position ever since.

He traveled. He visited Chinese colonies in London, San Francisco, Burma, the Straits Settlements—all over the world. Very quietly but very surely he built up a chain of devoted adherents to the cause. the power of which we can only faintly realize. In so doing he came within the ken of the Imperial Chinese government, and a price was set upon his head, said to be the largest ever offered for the arrest of a human being. But his disguises were impenetrable, and his friends too true to be susceptible to corruption.

As *Current Literature* says, "the foundations of his campaign have long been solidly laid upon four cornerstones—unselfishness, patriotism, courage, capacity." He is "a sincere and humble-minded Christian, who translates into action the teachings of the Sermon on the Mount," and his religion is not of the theologic but rather of the practical type. "My brothers," he said to a meeting of students, "applied, practical Christianity is our true need."

Sun Yat Sen is not a "magnetic man"; he is not an orator; he seeks no personal publicity, but rather avoids it. It is the candor, the unselfishness, and the fervor of his spiritually minded personality which have inspired his followers.

With such a man at the head of this revolution—a man of our own clan—clean, constructive and patriotic—assuredly every physician in America will desire the triumph of Dr. Sun Yat Sen, and the Chinese republic, of which he is provisional president.

When that obscure missionary, who, years ago, was scattering the seed of his faith in a distant Chinese province, reached the heart of Sun Yat Sen's father, how could he realize the tremendous fruitage which his efforts were to bring forth? The work of American missionaries may eventually result in a greater China, not a "yellow peril," and the transplantation of the best of our civilization to an old yet fertile soil, where it may bring forth even more perfect flower than in our own.—*Am. Jour. of Clin. Med.*

News of the Month

THE MEDICAL TREATMENT OF SCHOOL CHILDREN

The Imperial House of Commons has ordered that during the financial year ending March 31st, 1913, a grant of £70,000 shall be provided for the medical treatment of school children. The local authorities, such as the London County Council (Education Committee) who have already taken up the burden of medical treatment will be encouraged to continue, and in other places the authorities will be encouraged to begin. The circular announcing this grant makes it plain that those who participate in the grant must come up to the ideas of the Board of Education as to an adequate scheme of treatment. One visit a year by the medical inspector will be deemed by no means sufficient. Not more than eight or nine children can be examined with reasonable care in one hour. Grants will also be made in aid of many ameliorative measures. Not records and statistics on paper, but an improvement in the health and physical condition of the child is the object sought to be assisted by the grant. H. MACM.

"Doctor, what do you think is the matter with my little boy?"

"Why, it's only a corristified exegesis, antispasmodically emanating from the germ of the animal refrigerator, producing a prolific source of irritability in the pericranial epidermis of the mental profundity."

"Ah! that's what I told Betsy, but she insisted it was wurrums."

The Physician's Library

BOOK REVIEWS

Honan's Handbook to Medical Europe, published by P. Blakiston's Son and Company, of Philadelphia, at $1.50, is a sort of doctors' Baedeker. Dr. Honan, a sixteen-year resident of Germany, was formerly president of the Anglo-American Association of Berlin, and a mitglied of several vereins. Final students or practitioners wishing to visit Europe will find this a useful book, it being choke-full of just such information as they need. It tells of the leading medical centres in Germany, Austria, Great Britain, Paris, Scandinavia, Switzerland, and the smaller countries. Useful maps are inserted.

J. N. E. B.

Cyclopedia of American Medical Biography. By Howard A. Kelly, M.D., Professor of Gynecologic Surgery at Johns Hopkins University, Baltimore. Two octavo volumes averaging 525 pages each, with portraits. Philadelphia and London: W. B. Saunders Company, 1912. Per set: Cloth, $10.00 net; Half Morocco, $13.00 net. Sole Canadian agents, The J. F. Hartz Co., Ltd., Toronto.

This is a work in two volumes that should find a very ready sale. Proceeding from the pen of Howard Kelly should, in itself, portend success; but, in addition to that, it contains a wealth of information that every medical man will appreciate being able to lay his hands on. The volumes are dedicated " To Sir William Osler, Bart., Physician, Medical Historian, Friend." It is well described in the Preface as " a new Biographical Encyclopædia, giving a brief outline of the lives of our departed medical worthies, with reference to sources for further data."

We know of no work that has been written that contains this information in such detail, and we would strongly recommend

its purchase. It can, in this instance, be truly said that no medical library can be considered complete without it.

W. A. Y.

Immunity; Methods of diagnosis and therapy, and their practical application, by Julius Citron, of Berlin; translated by A. L. Garbat, of the German Hospital, New York. Philadelphia: P. Blakiston's Son and Co.

The price of this work is $3.00. The aim of the book is to present the subject of immunity so that the general medical man, who is even slightly acquainted with laboratory work, can learn the details of the various reactions and their significance. After dealing with the subjects of antibodies, the law of specificity, there follows a description of laboratory equipment and the general technique. The method of preparing vaccines and of their administration are lucidly set forth. Then comes the subject of toxins and antitoxins, of agglutination, of precipitins, of bacteriolysins, the method of complement fixation, of phagocytosis, and serum therapy. All are contained in 200 pages—a practical volume—capable of being enjoyed in the library, or used as a handbook in the laboratory. J. N. E. B.

A Compend of Genito-Urinary Diseases and Syphilis. By Charles S. Hirsch. Second Edition. P. Blakiston's Son and Company, Philadelphia.

This quiz compend can only be intended for the use of students, and even as such can hardly be recommended. The author has endeavored to cover in a short space the whole field of genito-urinary diseases and syphilis. As a result the pathological side has largely been neglected, although he goes into the examination of urine even so far as to describe the diazo reaction. What the relation of the diazo reaction is to genito-urinary diseases one can hardly see. All forms of urethritis, simple as well as specific, are called gonorrhea, with the aded remark that the gonococcus is the most common cause of this condition. Eneuresis is very inadequately considered, and the results of phimosis are rather exaggerated. The treatment, consequently, is radical. Syphilis is considered in a short space in an up-to-date manner, and this would seem to be the

best part of the book. For those trying examinations the book would probably prove useful. G. S. S.

Lateral Curvature of the Spine and Round Shoulders. By R. W. LOVETT, of Harvard. 2nd Edition, revised and illustrated. Philadelphia: P. Blakiston's Son and Company.

This little volume of 200 pages contains the newest ideas in respect to orthopedic surgery. Its contents, of course, appeal more particularly to the specialist in deformities, but the work will well repay perusal by the general medical practitioner. The illustrated methods of the management and treatment are a commendable feature of the volume. Following the usual anatomical dissertation and a disquisition on the movements of the spine, the author describes the mechanism of scoliosis, its symptoms, and method of examination. Then comes a study of its pathology, cause and occurrence (particularly in school children); its diagnosis, prognosis and treatment.

Honan's Handbook to Medical Europe. A Ready Reference Book to the Universities, Hospitals, Clinics, Laboratories and General Medical Work of the Principal Cities of Europe. By JAMES HENRY HONAN, M.D. Philadelphia: P. Blakiston's Son and Company. Price, $1.50 net.

A book of this sort is an essential for anyone contemplating post-graduate work abroad. This little volume will be found to answer the purpose for which it was intended. The work in Germany, Austria, France and Great Britain is well presented.

G. S. S.

Minor and Emergency Surgery. By WALTER T. DANNREUTHER, M.D., Surgeon to St. Elizabeth's Hospital and to St. Bartholomew's Clinic, New York City. Philadelphia and London: W. B. Saunders Company.

This volume of 226 pages is dedicated to the hospital interne, a position the author filled in Jersey City Hospital, and is written for the interne's guidance when acting independently. The author makes an effort to particularly emphasize those points that are of great importance in practical work, but which

are often apparently disregarded or ignored. The author extols the use of iodine as an antiseptic. J. N. E. B.

Diseases of the Genito-Urinary Organs and the Kidney. By Robert H. Greene, M.D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and Harlow Brooks, M.D., Assistant Professor of Clinical Medicine, University and Bellevue Medical College. Third Revised Edition. Octavo of 639 pages, 339 illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $5.00 net; half morocco, $6.50 net. Canadian Agents, The J. F. Hartz Co., Toronto.

In this book the authors have decided in presenting the profession with a book of direct utility. It is a capital work all the way through. It is practical in the extreme, contains a great deal of new material and, what is most important, the result of actual experience. Can we say more than, "Purchase it without delay"? W. A. Y.

The Essentials of Materia Medica and Therapeutics for Nurses." By John Foote, M.D., Assistant Professor of Therapeutics and Materia Medica, Georgetown University School of Medicine; Instructor in Materia Medica and Therapeutics, Providence Hospital Training School for Nurses. Philadelphia and London, J. B. Lippincott Company, 1911.

This book has been written for the purpose of simplifying the study of therapeutics for Nurses by limiting the number of preparations to be studied by them, but this is not all, nor is it the best part of the book.

Definitions, with a description of weights and doses—the physiological action of medicines—hypodermic and rectal medication, are all treated in an easily understandable manner, and contain many hints that should be of value to all young nurses.

The book also contains a reference list of commonly used drugs, chemicals, proprietary medicines, etc. Every nurse should have this book. A. J. J.

Principles and Practice of Physical Diagnosis. By JOHN C. DACOSTA, Jr., M.D., Assistant Professor of Clinical Medicine, Jefferson Medical College, Philadelphia. Second edition, revised. Octavo of 557 pages, with 225 original illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto. Cloth, $3.50 net.

It may be that the X-rays are making inroads into regions once thought sacred to internal medicine. Whether this assertion is true or not, the skiagram now offers a short cut in the diagnosis of diseased conditions, which may have puzzled clinicians. We do not by any means wish to minimize the importance of physical diagnosis, which will ever be necessary; a clinician should be able to do his work, whether the X-rays are available or not.

We are familiar with the first edition of Dr. DaCosta's work (1908) and are pleased to notice that improvements, chiefly in connection with the subjects of sphygmomanometry, nodal rhythm, pleurisy and lobar atelectasis have been added to the present work; in both of them we get the results of Dr. DaCosta's experience as a teacher. The illustrations in this work are well chosen and effective; many of them have already appeared in the first edition. Next to personal instruction by a clinician, the best thing in a work of this kind is a well pictured book, which shows through the illustrations the methods of the teacher. The publishers' work is very well done. J. J. C.

Diseases of the Stomach, with special reference to treatment. By CHARLES D. AARON, Sc.D., M.D., Professor of Gastroenterology and Adjunct Professor of Dietetics in the Detroit College of Medicine; Professor of Diseases of the Stomach and Intestines in the Detroit Post-Graduate School of Medicine; Consulting Gastroenterologist to Harper Hospital. With 42 illustrations and 21 plates. Lea & Febiger, Philadelphia and New York, 1911.

The work is confined to the medical aspect of gastric disorders, very practical and therapeutic. Under "Medication" is

described the antilytic serum treatment, the administration of the normal blood serum of the horse in gastric ulcer.

The treatment by bacterial vaccines is dealt with at some length, but the author says it is rather too early to accord it a permanent place in the therapeutics of ulcer. The section on neurosis is rightly given a prominent position from its frequency, and is discussed under various subdivisions as sensory, motor and secretory disturbances.

Achylia gastrica is included under chronic gastritis, as Dr. Aaron argues that the latter involves the diminution and eventual cessation of gastric secretion.

The author holds that surgery is very apt to intervene unnecessarily in the treatment of gastric disturbances.

We find the book complete in detail, though not cumbersome, and commend it to those interested in this branch of medicine. The plates and illustrations are instructive; the type plain. W. H. P.

Messrs Reed and Carnrick, of Jersey City, N.J., recently published an illustrated pamphlet worthy of comment. It shows a series of colored microphotographs of the urine in such conditions of the kidney as passive hyperemia, acute diffuse nephritis, third or convalescent stage of acute diffuse nephritis associated with pyelitis, chronic diffuse nephritis, chronic interstitial nephritis, amyloid degeneration, tuberculosis of the kidney, pyonephrosis, cystitis, etc. The booklet is full of valuable information and we would suggest that physicians send for a copy, which will be supplied on request.

Lessons on Massage. By Margaret D. Palmer, formerly masseuse and manager of the Massage Department of the London Hospital, and Instructor of Massage to the Nursing Staff; a founder of, and Examiner to, the Incorporated Society of Trained Masseuses. (Fourth) 4th edition. London: Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden, 1912.

The writer of this little volume is now such a well known authority that her book hardly requires any further recommendation. It contains practically all the anatomy and physiology

that a nurse requires to know to enable her thoroughly to understand her work. It also contains all that is new and up to date. Massage as advocated in the treatment of fractures is described, and the care in handling these cases is impressed upon the reader. The long experience of the author enables her to speak authoritatively on this whole subject. Every nurse should have this book, if not to learn from, at least, as a book of reference. A. G. G.

The Renouf Publishing Company, 25 McGill College Ave., Montreal, are now agents for the Dominion of Canada and Newfoundland, for "The Proceedings of the Royal Society of Medicine," published by Longmans, Green and Co., of London, England, and all orders can be filled by them.

A PALATABLE VEHICLE*

As a palatable vehicle for the administration of medicine, Smith's Grape Juice, as bottled at Winona, Ontario, will be found a valuable aid to the practitioner of medicine. The active properties of some therapeutic agents are weakened or destroyed when administered in an alcoholic vehicle. Many persons who cannot take cod liver oil, can take without difficulty olive oil in grape juice in the proportion of two ounces of grape juice to one ounce of olive oil, and take at once. The sedentary worker, who, when overtaxed, gets "brain fag," will find Smith's Grape Juice, besides being a delicious drink, the best of all tonics. It is most refreshing and invigorating. It stimulates without any reaction whatever, because it is a natural tonic of both dietetic and medicinal value. For children with weak digestion it is splendid, combining its tonic qualities with deliciousness as a drink. Smith's Grape Juice is an ideal summer drink, neither sweet nor sour. It is a refrigerant, cooling the blood because of the little effort required for its absorption.

*Publishers Department.

LISTERINE

Listerine is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils.

After the volatile constituents have evaporated, a film of boric acid remains evenly distributed upon the surfaces to which Listerine has been applied.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues ; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

In the treatment of summer complaints of infants and children, Listerine is extensively prescribed in doses of 10 drops to a teaspoonful.

In febrile conditions, nothing is comparable to Listerine as a mouth wash ; two or three drachms to four ounces of water.

"The Inhibitory Action of Listerine," 128 pages descriptive of the antiseptic, may be had upon application to the manufacturers,

LAMBERT PHARMACAL COMPANY,

Church and Gerrard Streets Toronto, Ontario

ANTEROLATERAL COLUMNS OF THE CORDS

At the suggestion of Dr. W. G. Spiller, W.B. Cadwalader and J. E. Sweet, Philadelphia (*Journal A. M. A.*, May 18), report the results of experiments made to determine the functions of the anterolateral column, including Gower's tract. Their object was to completely destroy the anterolateral region without injuring the area occupied by the dorsal cerebellar tract or any part of the grey matter. Dogs were employed for the experiment. "Under complete ether anesthesia an incision was made over two spinous processes and carried down directly to the bone; this incision was carried on as a subperiosteal resection of the processes and the laminae of the vertebrae, until the cord was exposed for about 3 cm. The dura was slit longitudinally in the midline and retracted on either side: the cord was then rolled over as gently as possible until the line of insertion of the ligamentum denticulatum was identified, believing this to correspond quite accurately to the posterior limits of the anterolateral tract; a small knife was inserted immediately in front of that point and thrust obliquely forward, then cutting outward through the periphery of the cord. A similar incision was made at the corresponding point on the opposite side. There was little hemorrhage. The dura was closed with a fine silk suture and the wound repaired with catgut. Iodin and collodion were used for dressing. Wound healing was perfectly normal." The dogs were watched from day to day, taking careful estimates of their individual traits and temperaments, which are of special importance in estimating the sensory symptoms. After a period of time the dogs were killed and the brain and cord immediately removed and the course of degeneration thoroughly studied microscopically. The symptoms observed were immediate motor paralysis, rapidly disappearing and replaced by very marked ataxia. Why motor weakness should occur is difficult to explain, the authors say, since they believe that Gower's tract is sensory in function, and microscopic examination showed that the pyramidal and von Monakow's bundles were not injured. It may have been, they suggest, from temporarily disturbed vascular supply. The temporary character of the paralysis in the injury of these latter tracts has been observed by Rothmann, and Schäfer has suggested that voluntary impulses are carried down the cord by fibres arising in Deiter's nucleus and passing through the ventral and anterolateral columns near the periphery. It does not seem possible to make a complete section of the anterolateral tracts without destroying these long-descending fibres. They must have been destroyed in these experiments, but the paralysis was not permanent. They therefore do not agree with Schäfer, and doubt whether motor paralysis in the true sense ever existed in their dogs, what was observed being due to a profound derangement of the neuromuscular apparatus, together with impairment of cutaneous sensibility, because sensory impressions which should pass through Gower's tract had been cut off and the compensating function of the remaining tracts was not yet established. They feel certain that their dogs had a definite though incomplete loss of cutaneous sensation for pain and for extreme heat, and very pronounced ataxia of the hind legs and rump. They believe that the fibres conducting painful sensations are probably connected with the thalamus and are situated close to the tractus spinocerebellaris ventralis, whose function is chiefly concerned in the regulation of purposive movements.

The Doctor of To-day

is a teacher as well as a physician. He puts common sense into his daily curriculum; and foods as well as drugs form part of his therapeutic armament.

Particularly in the treatment of diseases of malnutrition does food become of paramount importance.

Grape-Nuts
FOOD

is a valuable acquisite to the common-sense therapy of modern practice.

Made of choice wheat and malted barley, this sturdy every-day food (sold by grocers everywhere) contains in readily assimilable form, those tissue salts most required by Nature for upbuilding physical and mental strength.

The iron, calcium, phosphorus and other essential tissue-building elements grown in the grain and carefully preserved in Grape-Nuts food, are Nature's true remedies for many an obscure ailment of malnutrition.

In these days of "impoverished flour," white bread starvation is too common an occurrence for the intelligent physician to ignore. A wise recommendation for the use of a food product incorporating the valuable ingredients of whole wheat and malted barley often succeeds when a prescription from the drug store fails.

The "Clinical Record," for Physicians' bedside use, will be sent on request to any physician who has not yet received a copy, together with samples of GRAPE-NUTS, POSTUM and POST TOASTIES for personal and clinical examination.

CANADIAN POSTUM CEREAL COMPANY
Limited

Windsor, Ontario.

INTRA-VENOUS MEDICATION

The William Bannerman Company, manufacturing chemists, have issued a pamphlet on intra-venous medication. In the introduction it is noted that "the method of administering drugs by the digestive tract has been somewhat responsible for the prevalence of 'drug Nihilism,' owing to changes that may take place in the digestive system. Leaders in medicine have devoted much time to overcome these obstacles. Hypodermic administration, inunction, intra-muscular injection, etc., have been suggested, with far from perfect success. The ideal method—intravenous injection—has been demonstrated both feasible and free from danger. The same tried drugs are used, but are treated before being compounded. This enables the doctor to inject them into the blood, removing all chance effects due to outside circumstances." The book was written to place before the profession the possibilities of the intravenous method as worked out from experiments on the lower animals first, and then from the treatment of a large number of diseases in the human. Clinical research has demonstrated that the administration of Bannerman's Intravenous Solution increases the number of red blood cells and raises the resistance. For this reason Bannerman's Intravenous Solution has been successfully employed in tuberculosis, anemia, chlorosis, and other diseases.

IODEX

Iodex (iodine externally) is an ointment-like preparation of resublimed iodine in a neutral base, and contains 5 per cent. of iodine, therapeutically free.

It is well known that iodine is most active in the free state.

Iodex is distinct from all other preparations of iodine. The technique of its manufacture embraces investiture of gaseous iodine with a neutral base.

Iodex is of an intense black color, yet, owing to its marked penetrative power, the color rapidly and completely disappears when Iodex is gently rubbed into the skin.

The disappearance of color is due to a special combination of organic bases which are impregnated with iodine in a gaseous condition. These bases form a protective film around the iodine molecules. This unique property of the bases effectually prevents the skin becoming impermeable or affected in any way, but permits and tends to assist the absorption into the tissues of the free iodine. No solvents, such as alkaline iodides, alcohol or glycerine, are used in the preparation of iodex.

Iodex does not stain, irritate, blister or crack the skin.

The introduction of iodex marks the elimination of the disadvantages hitherto associated with the external application of iodine, and opens up new possibilities for free iodine as a therapeutic.

Iodex is issued in 1 oz. pots for dispensing.

In all conditions where iodine is indicated Iodex may be used to advantage; it powerfully stimulates mucous surfaces, greatly increases gland secretions, and rapidly reduces inflammation. As an absorbent it is most valuable,

Scheidel-Western "Radiographic" Portable Coil

Seven Useful Treatment Currents

Makes a Hip Radio-graph in 45 Seconds

The Most Powerful Portable Coil Made
Write for complete set of catalogs

THE SCHEIDEL-WESTERN X-RAY COIL CO.

Largest Manufacturers of Electro-Therapeutic Appliances in the World
411-419 So. Jefferson St., Chicago, Ill.

INGRAM & BELL, LIMITED
Toronto Representatives

CHANDLER & FISHER
Winnipeg Representatives

as the very satisfactory results which have accrued from the use of Iodex in gummata, goitre, hydrocele, synovitis and bursitis all tend to show.

Through the medium of Iodex it is possible to continue iodine medication over lengthy periods without inconvenience or distress to the patient.

The selection from the numerous reports received from clinicians (whose names are withheld from ethical considerations), bears convincing testimony to the benign effects of Iodex in the treatment of: Rheumatism, rheumatoid arthritis, gout, tuberculous joints, enlarged joints, enlarged glands, sciatica, sprains, syphilis, ringworm, quinsy, chilblains, and all inflammatory conditions.

Parasitic affections of the skin respond very readily to treatment by Iodex as its powerful absorbent, antiseptic and germicidal action would suggest.

Iodex should be gently rubbed into the affected part—until the color entirely disappears—two or three times a day. In some conditions—which will at once suggest themselves to the medical mind—hot fomentations are of assistance in the first instance, whilst in other cases it suffices to simply apply Iodex, and cover with lint.

THE NEW HUPMOBILE TOURING CAR

THE following facts as given out by the manufacturers of the new Hupmobile touring car will interest our readers:

We have figured always that it was the wisest kind of enlightened selfishness to give more than the public expected.

Thus, only one motor in America has a longer stroke than the engine in the new Hupmobile "32."

And this car sells for several times the Hupmobile price of $1,000.

The relation of stroke to bore in the new Hupmobile is the mean average of the best and latest European practice, and is positive assurance of greater pulling power.

The cylinders are cast en bloc; the crankshaft, of special drop-forged high carbon steel, is equipped with three especially liberal bearings, instead of two; the valves—all on one side—are completely encased, oil-tight and dust-proof, yet instantly accessible.

Note these evidences of extra-generous construction, please, and compare them with other cars at the Hupmobile price.

You will see in the engine and transmission unit a triumph of mechanical adaptation, which makes for increased efficiency and space economy.

The full-floating rear axle, in itself, places the Long-Stroke "32" in an exclusive class.

You can ascribe all these constructive advantages to the fact that the Hupmobile organization has alway been held practically intact.

The chief engineer, E. A. Nelson, designed the original Hupmobile runabout, whose priority in its own class has never been seriously disputed. The department heads, and the skillful workmen who have executed his designs, have remained with us in our progressive development.

We should be glad to send to you 4 1-2 x 8 1-4 photogravures and full description of the handsome Long-Stroke " 32."—Hupmobile Co.

Recent
Mulford Biological Products

CHOLERA-BACTERIN (Cholera Vaccine)
For immunization against cholera.

CHOLERA AGGLUTINATING SERUM
For diagnosis of cholera.

INFLUENZA-BACTERIN MIXED (Influenza Vaccine Mixed)
For the prophylaxis and treatment of colds.

MENINGO-BACTERIN (Meningococcic Vaccine)
For immunization against epidemic cerebrospinal meningitis.

NEISSER-BACTERIN MIXED (Gonococcic Vaccine Mixed)
Indications.—Acute and chronic gonorrhea, its sequelae and complications.

PNEUMO-BACTERIN MIXED (Pneumococcic Vaccine Mixed)
Indications.—Mixed infections caused by the pneumococcus, streptococcus and staphylococcus.

PULMONARY-BACTERIN MIXED
Indications.—Mixed infections of the respiratory mucous membranes, especially for chronic catarrhal conditions of the nose, throat and respiratory passages, and for the mixed infections in pulmonary tuberculosis.

RABIES VACCINE (Pasteur method)
For the preventive treatment of hydrophobia.

SCARLATINA-BACTERIN (Scarlet Fever Vaccine)
Indications.—Treatment of scarlet fever and post-scarlatinal affections.

STAPHYLO-BACTERIN MIXED (Staphylococcic Vaccine Mixed)
Indications.—Mixed infections, middle-ear disease, etc. Useful for immunization before abdominal operations.

TYPHO-BACTERIN MIXED (Typhoid Vaccine Mixed)
For the prevention and treatment of typhoid fever.

We issue Working Bulletins on each of the above. Copies will be mailed free upon request. State which Bulletins are desired.

H. K. Mulford Company, Chemists, Philadelphia

New York Boston Chicago St. Louis Minneapolis Kansas City
Atlanta Dallas San Francisco Seattle Toronto

SPINAL COLUMN SECTION

W. G. Spiller and E. Martin, Philadelphia (*Journal A. M. A.*, May 18), report a case of section of both anterior lateral columns of the cord for the relief of excessive pain due to a large malignant growth. The question as to the route of conduction of pain fibres in the cord is discussed by Spiller, who reviews some of the recent literature on the subject and says that the work of Petren and his own studies lead to the conclusion that fibres for the conduction of pain are located in the anterolateral columns. He therefore referred this patient, who was suffering intolerable pain, to Dr. Martin for division of the anterolateral column on each side. The pain was greatly relieved and the condition in other respects was not any worse than it was before. So far as Spiller is aware, the case reported is the only one in which the operation has been done. The operation is described by Martin as follows: "The problem presented by Dr. Spiller was the making of a transverse cut into the spinal cord, roughly 2 mm. in length, of a similar depth, and with its posterior end 3 mm. anterior to the emergence of the posterior root; this cut to be bilateral. The only special instrument required was a small thin-bladed cataract knife, double-edged on its angled point, the latter being about 5 mm. long. Since in this individual case there was no need for conservation of the bone, the lamina and spinous processes of the sixth, seventh and eighth dorsal vertebrae were removed. The dura was split, retracted by threads, the cord was slightly lateralized by passing threads about the posterior roots and gently using them as tractors, and the cord incision was made on each side with very little bleeding. The wound was closed without drainage and, in so far as it was concerned, the after course was uneventful." Martin remarks that the approach to the cord can be expedited and simplified—although it was not done in this case—by the use of the Hudson trephine and the Cryer bone cutter. These admit of saving the spinous processes in making a limited section on one side only, such as would be all that was needed in many operations.

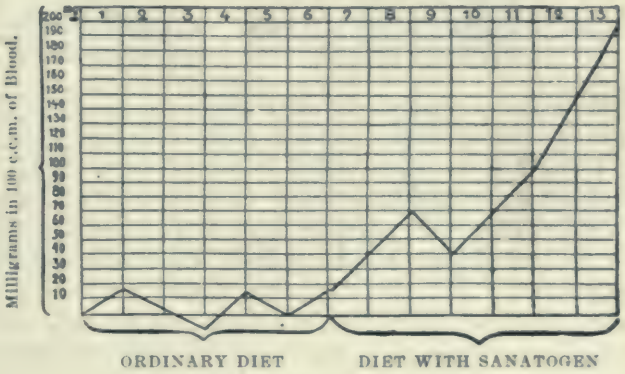
BURROUGHS, WELLCOME & CO.'S EXHIBIT AT A RECENT MEDICAL MEETING

An attractive feature of the exhibit of Burroughs, Wellcome & Co. was the fine collection of medicinal plants grown at the "Wellcome" Materia Medica Farm. These plants are raised under ideal conditions, and their cultivation near the "Wellcome" Chemical Works and under the superintendence of experts has resulted in the selection and maintenance of the strains of each plant best for medicinal purposes.

Among products which are the result of chemical and pharmacological research one of the most noteworthy is "Epinine." This substance is presented as a colorless one per cent. solution enclosed in 10 c.c. and 25 c.c. bottles and also in hermetically-sealed "Vaporole" containers. Its action resembles that of the supra-renal gland active principle, but the rise of blood pressure produced is more prolonged.

"Lodal" is a salt of an alkaloid prepared by the oxidation of laudanosine,

The Dietetic Value of Sanatogen



CAN the beneficial effects on nutrition noted by physicians during the administration of Sanatogen be in any way checked or measured? This question is answered by the above diagram, which shows graphically the average proteid content of the blood-serum in a series of test cases before and after the administration of Sanatogen. Details of the observations are contained in the *British Medical Journal*, Dec. 10th, 1904. The method adopted was that of estimation of the refractive index of the blood as now employed in cases of heart, kidney and blood diseases. As was to have been expected of physicians on the staff of the Royal University Clinic of Berlin, every source of fallacy was excluded with almost pedantic care. Control experiments were made on the patients concerned for many days before the special observations were begun. The treatment was intermitted to make certain that the results were due to the cause recorded. Cases even slightly questionable were excluded.

The normal proteid content being ascertained, *Sanatogen* was then given in amounts of 40 to 45 grms. daily, this preparation being selected because of its high proteid contents, its special organic phosphate and its proved ease in assimilation. An increase in the proteid content of the blood commenced almost at once, and, as indicated in the diagram, this progressed in a short time to a height never anticipated. Besides being absorbed itself, the Sanatogen appeared to stimulate the absorption of proteids in the ordinary diet. The observers who conducted these researches conclude that a diet containing large amounts of readily assimilable proteid, such as Sanatogen, will produce a marked increase in the proteid contents of the blood, and thus lead to a notable nutritive improvement.

Samples of Sanatogen and Literature sent free to members of the Nursing Profession on application to A. Wulfing & Co., 12 Chenies Street, London, W.C.

Sanatogen

and is closely related chemically to hydrastinine and cotarnine. It has been used with advantage in cases of uterine hemorrhage.

Three products—"Ernutin," "Ergotoxine," and "Tyramine"—which are the result of special research in regard to ergot, illustrate the modern preference for standardized preparations of active principles in place of variable extracts.

Substances of animal origin are obtaining an increasing place in medicine, and were well represented at this exhibit, "Tabloid" and "Vaporole," thyroid gland and pituitary gland, being prominent examples.

The series of "Wellcome" sera, vaccines, and tuberculins, which also come under this brand, are prepared with the utmost care, and under the direct supervision of skilled bacteriologists at the Wellcome Physiological Research Laboratories.

A concentrated diphtheria antitoxin has recently been introduced under the "Wellcome" brand, containing 1,000 antitoxic units in 1 c.c. or less of fluid. This concentration, which presents a decided improvement over the more bulky injections, has been effected by the introduction of a new technique utilizing salt precipitation and eliminating inert proteins.

A great variety of very convenient "Tabloid" and "Soloid" equipments for special occasions and requirements were shown. These included the "Tabloid" Medicine Chests, Physician's Emergency Case, "Soloid" Blood Test, and Bacteriological Cases, and other outfits well adapted for the requirements of the specialist as well as the general practitioner, and also for traveling expeditions and lengthy journeys.

IDEAL FOR EITHER THE HOME OR THE HOSPITAL

THE following are a few reasons why the *Malott Weather Strips* should be used:—

(a) A house can be quickly heated if applied with the *Malott Weather Strips,* which keeps the heat in and the cold out.

(b) From 25 to 30 per cent. is saved in fuel bills by using the *Malott Double Protection and Self Adjusting Weather Strips.*

(c) *Malott Weather Strips* prevent the destruction of valuable drapes, curtains, blinds, etc., by keeping out the dust and soot, also snow and water.

(d) *Malott Weather Strips* are applied so as *to not interfere with the ventilation of a house*, the windows are opened as easy with strips on as without so *house can be ventilated without any inconvenience.* This will interest physicians particularly.

(e) Windows are permanently stopped from rattling if applied with *Malott Weather Strips.* How important this is in the sick room. The metal spring as well as tongue of metal stops it.

(f) Windows and doors are made to work free and easy by experienced workmen before putting on strips, and which often time would cost near half as much as Weather Strip costs if fitted by a carpenter.

Turn to page xxii of this issue for fuller particulars, firm's address, etc.

IODEX

(Ung. Iodi M. & J.)

IODEX presents FREE IODINE in its highest therapeutic activity.

IODEX is entirely free from Solvents, such as Alkaline Iodides, Alcohol or Glycerine.

IODEX is absorbed with great rapidity and does not stain or irritate the skin.

IODEX is indicated in:—
Rheumatism, Gout, Swollen Joints, Syphilis, Ringworm, Enlarged Glands and all Inflammatory Conditions. In Pots, price 35 cents.

LAXOL

(Castor Oil Made Palatable)

LAXOL is the finest Castor Oil freed from nauseous taste and smell

LAXOL is not an emulsion or a diluted Castor Oil, but exhibits its therapeutic qualities unimpaired.

LAXOL is very pleasant to take and is entirely acceptable to the most fastidious. Children like it.

LAXOL does not gripe, and is valuable in Typhoid Fever, Diarrhoea Convulsions in Children, also Pregnancy and Childbirth. Dose same as Castor Oil. 3 oz. Bottles, 25 cents.

Samples and Literature sent on application.

MENLEY & JAMES Ltd. (of Canada) 337 Craig Street W. MONTREAL

Doctor!

You are aware of the fact, of course, that
PURE WATER IS A NECESSITY.

For the sake of your patients, permit us to suggest that, when ordering water whether it be for flushing the kidneys, stimulating a sluggish liver or eliminating waste matter from the system, you specify

McLaughlin's Hygeia Distilled Water

It is as pure as the sunbeam. It contains no germs, no fungi, no lime, no alkali, no salts. It is just pure water. Doctors will be interested to know that we have now identified with our firm Wm. P. Kaufmann, M.D., C.M., Tor., Univ., a fully qualified medical practitioner who has full charge of our laboratory—We also boast of the finest bottling plant on the continent so that everything (including our bottles) is strictly hygienic.

Please remember the name of our distilled water, **Hygeia.**

J. J. McLAUGHLIN, Limited

Manufacturing Chemists

OTTAWA——TORONTO——EDMONTON

A NEW AND PROMISING AGENT FOR THE TREATMENT OF RHEUMATISM

An announcement that is certain to cause widespread interest among the profession is being made in medical journals in behalf of Rheumatism Phylacogen. The new product is a bacterial derivative originated by Dr. A. F. Schafer, of California. The term "Phylacogen" (derived from two Greek words—the equivalent of "a guard" and "to produce") means "phylaxin producer," phylaxin being a name that is applied to a defensive proteid found in animals that have acquired an artificial immunity to a given infectious disease.

Rheumatism Phylacogen (Schafer) is a sterile aqueous solution prepared from a large variety of pathogenic bacteria, such as the several staphylococci, Streptococcus pyogenes, Bacillus pyocyaneus, Diplococcus pneumoniæ, Bacillus typhosus, Bacillus coli communis, Streptococcus rheumaticus, Streptococcus erysipelatis, etc. The basic Phylacogen is a "polyvalent" preparation, since the organisms are obtained from cultures made at frequent intervals and from a variety of sources. To this basic material is added an equal amount of the filtrate obtained by similarly growing and treating the Streptococcus rheumaticus of Poynton and Paine. The product is indicated in all cases of rheumatism, acute and chronic, not due to gonorrheal infection. It is marketed in sealed glass vials of 10 cc. capacity and may be administered subcutaneously or intravenously, the former method being preferred except in cases in which quick results are demanded.

Rheumatism Phylacogen, which is the first of a series of phylacogens originated by Dr. Schafer and about to be offered to the medical profession, has been thoroughly tested clinically in many of the leading hospitals, as well as by competent specialists and other scientific men in various parts of the country, and is said to have shown brilliant results in a large percentage of cases. With the co-operation of Dr. Schafer, and in accordance with his methods, it is prepared by Parke, Davis & Co., in whom are vested the sole rights of manufacture and sale. Physicians who are interested in this new treatment for rheumatism, and every general practitioner ought to be, will do well to get descriptive literature on the subject. It may be obtained by addressing the manufacturers at their principel laboratories in Walkerville, Ont. Ask for the "Rheumatism Phylacogen pamphlet" and mention this journal.

POND'S VAGINAL TAMPONS

These tampons have been in very general use by the busy practitioners in the United States and Europe for some years past, but because of the duty have not before been placed before the profession in Canada. The Canada Pond Tampon Company, of Vancouver, B.C., have purchased the rights for this country, and are now manufacturing in a well-equipped, cleanly factory. They offer the physician a thoroughly aseptic method of tampon treatment. Their advertisement on page xxxi is worth reading.

Knorr's Consomme -Cubes-

Each cube one cup.
"Ready in a minute."

2 cubes 5 cents.

If you like the

Consomme

try

KNORR'S

SOUP SQUARES

and

MIXED VEGETABLES

At your Grocers

STANDARD Floor Dressing

PREVENTS CIRCULATION OF DUST AND GERMS

Wherever many persons come together, there are quantities of dust floating in the air, stirred up by the movement of many feet.

Science has proved dust is a favorite nesting-place for disease germs.

It follows that at every breath there is danger of infection from the germs inhaled with the floating dust.

Standard Floor Dressing catches all dust the instant it settles on the floor and holds it there. At the end of the day dust and germs are easily swept away without again rising into the air.

Not Intended For Household Use.

Our free illustrated booklet contains information of special value to all who are in a position to promote hygienic conditions. Write for it to-day.

The Imperial Oil Company, Limited

Winnipeg, Montreal, St. John, Halifax and Queen City Division, Toronto

THE PALLIATIVE TREATMENT OF HEMORRHOIDS

BY H. G. THOMAS, M.D., B.SC.

THE connection between the symptoms of the rectum distress and the lesion of hemorrhoids is quite irregular. There may be great complaint with little local change or much varicosity of the hemorrhoidal vein with little distress. The veins returning the blood from the rectum, because of the absence of valves, are easily affected by the position of the body, diet and customs, and the functions of the rectum are liable to become altered. The veins dilate, congestion follows with an inflammatory exudate in the tissue and a tumor results. If above the external sphincter it is an internal hemorrhoid; if below the muscle it is an external hemorrhoid. No class of people are exempt from this affection, whether much out-of-doors or given to healthy exercise, or one of sedentary habits. The distress may be constant, as caused by a foreign body, or the sensation of burning and smarting; or, still again, it may be accompanied by spasmodic muscular contraction of the rectal muscles, but pain is the symptom for which relief is sought, especially in the external variety. Such symptoms are greatly aggravated by long-continued sitting, horseback riding, or by errors of diet. In conjunction with the pain in internal varieties the most prominent symptoms are a constant leaking through the anus of a sanguineous discharge from the inflamed mucosa and a tendency toward prolapse.

No other part of the body when diseased yields so readily to treatment. Operations in many instances are unnecessarily hazardous, and again many cannot spare the time, or refuse to be operated upon, or the facilities may not be at hand. Palliative treatment in such cases is our only refuge and often results in a cure.

More commonly inflammation exists when the physician is first consulted and prompt relief is desired. It is now my practice to give ten grains of calomel and in a few hours follow with a dose of Rochelle salts.

I then direct that a fifty per cent. solution of Glyco-Thymoline (hot) be applied to the piles three or four times daily and that a piece of absorbent cotton dipped in the same solution be applied to the inflamed tumor during the interval.

HYDROPHOBIA (RABIES)

A CASE of hydrophobia in a child 3 years old is reported by J. G. Cumming, Ann Arbor, Mich. (*Journal A. M. A.*, May 18), who also gives a good description of the disease and its diagnosis. After mentioning the popular errors in regard to the dread of water by rabid animals and the special dangers of the disease in hot weather, he says it should not be confused with the disease commonly called fits in dogs, which lasts only from thirty minutes to two hours, as against six or seven days in rabies. Rabid dogs seldom foam at the mouth; they may drool from deglutitory paralysis, but a dog with fits froths profusely. A rabid dog never recovers, as is often the case with dogs

"Expels without discomfort to the patient the poisonous toxins that form in the alimentary canal and is of particular value in the treatment of febrile conditions."

Wyeth's

GRANULAR **Salinates** EFFERVESCENT

SUPPLIED IN SEALED BOTTLES
CONTAINING 1-4 LB. AND 1 LB.

PREPARED BY

JOHN WYETH & BROTHER
INCORPORATED

Manufacturing Pharmacists, PHILADELPHIA, PA.

with fits. The latter disease should not be confused with rabies if the histories are taken into account and the Negri bodies are absent. The specific virus has its normal habitat in the nervous system and is only temporarily virulent anywhere else. It is readily destroyed by heat and drying, and when introduced into a wound it must come in contact with a broken nerve trunk to survive and reproduce itself. It is usually spread by dogs, 90 per cent. of cases being due to their bites. Other animals are liable to it and many convey it. The disease may develop, however, simply from a rabid dog licking a scratch or from its saliva coming in contact in any way with an open wound. In the paralytic stage of the disease the dog is not aggressive, but this is not so common as the furious delirium which usually appears early and in which it is liable to attack anything in its way. Death results from complete paralysis, usually in from two to seven days after the first appearance of the symptoms. In the laboratory at Ann Arbor they have observed the virus to the third and fourth generation, verifying the diagnosis by laboratory tests. All the dogs of the fourth generation of rabies were killed but one, which the owner wished to keep to assure himself that it was mad. After an incubation period of four weeks, it also became rabid and, not being properly restrained, caused one human death from the disease.

MESSRS. MAY & BAKER, LIMITED, LONDON, ENGLAND

THIS is one of the oldest and best known manufacturing houses in Britain. They have obtained some of the highest awards in open competition at all important international exhibitions during the past sixty years, including London, Paris, Adelaide (Australia), St. Louis, Mo., and Melbourne (Australia).

Their principal products are Bismuth Salts, Mercury Salts (including their famous Calomel), Corrosive Sublimate, etc., Refined Camphor, Lithia Salts, Antimony Salts, Alkaloids, Essential Oils, etc.

They were among the first makers on a large scale of Hydrogen Peroxide, and their product of this is still one of the finest on the market.

In heavy chemicals they manufacture a number of articles, such as Lead Arsenate in paste and powder, now used so extensively for spraying fruit trees.

The medical men of Canada should know that May & Baker produce a full line of all modern products under their correct chemical names. For instance, they sell Acid Acetylsalicylic at its fair market value, but identically the same product is sold at prices having no relationship to its market value under other names.

Their products are all labeled by their correct names, as given in the *Pharmacopeia* or the *Codex*, and are sent out at reasonable market prices. Further, to enable buyers to get the right goods at fair prices, they publish in their price-list a list of correct names and synonyms, which alone makes it worthy of a place on the physician's desk.

Messrs. May & Baker were established by John May in 1834, and it was in 1839 that the firm became known under the title of May & Baker. They

"the basic value of a remedy is the result which it produces.

Laboratory demonstrations may prove the purity, or the component parts of a product, but by therapeutic application and clinical observation must its true value as a remedy be determined.

Upon the basis of clinical manifestation of dependable uniformity, the value of antiphlogistine has been established and most generously acknowledged by its extensive employment.

In inflammatory and congestive conditions, antiphlogistine has proven of particular service and as a seasonable suggestion, its application thick and hot, well protected by suitable covering, to sprains, strained or stiffened tendons so prevalent during vacation time, will afford the patient relief from pain and an early use of the part."

were incorporated as a limited company in 1890. Their works and offices at Battersea comprise in all five acres. The site being interesting as Garden Wharf was formerly a portion of Lord Bolingbroke's garden.

The attention of the readers of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY is directed to the firm's advertisement appearing on page iii of this issue.

DIOVIBURNIA AND NEUROSINE

THE Dios Chemical Co., St. Louis, Mo., announce that they are now inaugurating an advertising campaign to familiarize the profession of Canada with their products. For twenty-five years Dioviburnia and Neurosine have been prescribed by a large portion of the physicians of the United States, and are considered by many to be the standard remedies in the class of cases for which they are indicated. Your attention is respectfully directed to the advertisement appearing in this journal.

It is the desire of this company to place samples of their preparations in the hands of every doctor who is sufficiently interested to give them a trial. Upon your request trial bottles will be delivered free of expense.

BATHS OF EVERY DESCRIPTION, MASSAGE IN ALL ITS BRANCHES, SWEDISH MOVEMENTS, VIBRATORY TREATMENT, ETC.

AT No. 20 Walmer Road, Toronto, physicians are able to have their patients treated, under their own supervision and direction, to massage in all its branches; baths, including electric light, shower, needle, etc.; Swedish movements and vibration. This institution was recently opened by Mrs. Neil MacKinnon, a masseuse of Scottish training. She employs a German masseur, who is on duty at all hours for male patients. Mrs. MacKinnon's institution is first-class in every respect, and conducted along scientific lines. She invites physicians to call and see for themselves the facilities afforded for the treatment of patients of both sexes.

A FACE MASK

M. E. SMITH, Seattle, Wash. (*Journal A. M. A.*, May 18), describes a face mask for surgeons made of heavy muslin sheeting which is easily slipped over a nickeled wire frame, somewhat resembling bower spectacles, and firmly secured at the back with three pairs of tapes. It is held sufficiently far from the face to not obscure the vision, but to thoroughly protect the operative field from anything from the nose or the mouth of the operator. It is less expensive than layers of gauze, and it can be laundered and sterilized and used again.

FLUID EXTRACT WELL MADE

IS THE

Best Form of Medication

THE

National Line of Fluid Extracts

ARE WELL MADE

Where practicable the actual strength of active ingredient in each lot is adjusted up or down to the

NATIONAL LEVEL of STANDARDIZATION

National Fluid Extract of Nux Vomica
National Fluid Extract of Belladonna
AND
National Fluid Extract of Digitalis

have a nation-wide reputation as reliable samples of this class of products :: ::

But where it is physically and analytically impossible to determine the active ingredient, the quality of the crude product is the first consideration, after that scientific manipulation. In this class of product

NATIONAL FLUID EXTRACT ERGOT

is so justly celebrated as the most unfailing preparation of Ergot ever put into the hands of the physician that it is not necessary to say a word about careful selection or scientific manipulation.

Doctors always feel absolutely safe in prescribing

NATIONAL FLUID EXTRACTS

National Drug & Chemical Company of Canada

LIMITED

Central Laboratories, MONTREAL

A FOOD TONIC

In the choosing of a food tonic there are several considerations that cannot be ignored. Among these are: First, the desirability of avoiding those food tonics which from their nature and ingredients tend to unduly stimulate or excite the higher nerve centres; second, the necessity for avoiding food tonics which suddenly and dangerously raise blood pressure; third, the futility of using food tonics which have not a well-defined permanence of action and nutrition in order to continue their beneficial effects; fourth, the danger of the over-use of tonics containing drugs, which from personal idiosyncrasy or other conditions may prove highly toxic.

For a period of over twenty years, Bovinine has been known and extensively employed by medical men. Bovinine represents the highest quality in its ingredients and the highest skill in its combinations. Special preliminary processes of preparing the various constituents, as well as of compounding them, unite to produce a food and tonic of uniform strength and physiological action.

Careful investigation of the action of Bovinine shows that it acts, primarily, by stimulating the digestive and absorptive processes, and by imparting tonicity to the whole nervous system. The hepatic and the various secretory functions are increased, and a more substantial assimilation of nutriment follows as a natural sequence, and it gives to the system every element required to properly sustain it. In other words, proper balance between waste and repair is brought about. Every organ and tissue shows improvement in the functional activity of its cells, and the accumulation of vital energy is tangibly shown in an increase of resistance and a lessened susceptibility to disease and improved blood standard. Nerve force is likewise increased, and the whole nervous system shows greater resistance to the depressing influence of mental wear and tear.

The significant feature finally of the administration of Bovinine is that it produces results on the whole economy that are lasting, not passing, and it has the very great advantage of having no contraindications.

LINK THE PAST WITH THE PRESENT

J. Marion Sims many years ago said: "For severe Dysmenorrhea I have found Hayden's Viburnum Compound of great service."

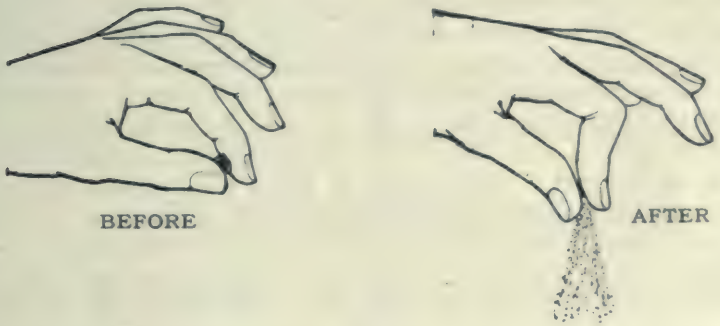
What was true as to the therapeutic value of Hayden's Viburnum Compound in the time of Sims is just as much of a fact to-day. As a remedy in the treatment of Dysmenorrhea, Amenorrhea, and other functional irregularities of the uterus and its appendages, H.V.C. is dependable in action, and, as it is of known composition and contains no narcotics, it is safe to prescribe.

As a uterine tonic and antispasmodic it is of particular service, and to any physician who desires to clinically demonstrate its therapeutic action samples and literature will be forwarded upon request to New York Pharmaceutical Company, Bedford Springs, Bedford, Mass.

PULVERETTE

TRADE MARK

PATENT POWDER PILLS



May be crushed to powder between finger and thumb.

Original process Patented everywhere.

Supersedes Pills or Tablets. No liquid excipients used. Simply a moulded powder enclosed in a frail coat of sugar. Unrivalled for private recipes.

Examine Samples=Then Judge

Made only by
OPPENHEIMER SON & Co., Ltd.
London, England

Supplied by
M. E. VANZANT & Co.
732 Yonge Street
TORONTO, ONTARIO

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

COLONIC STASIS AUTO-INTOXICATION

G. E. Hoxie, Kansas City, Mo. (*Journal A. M. A.*, May 18), having had the opportunity of studying the blood of many patients complaining of obscure abdominal symptoms, was struck with the uniform findings in those cases in which auto-intoxication from colonic stasis was at the bottom of the trouble. It has convinced him that this kind of auto-intoxication is frequent, but it does not include all cases of constipation. In some patients evidently the intestinal mucosa and the liver filters are efficient in guarding the body cells from the results of fermentation and putrefaction of the intestine. While the causes of the stasis may be various, mechanical and otherwise, the resulting symptoms are approximately alike. The patients are nervous and depressed. The skin shows dirty discolorations wherever it overlies loose connective tissue. The appetite may be ravenous. There is usually some headache and backache, with periodic or intermittent abdominal pains. The colon is usually tense and tender, at least in spots. The urine shows indicanuria and an excess of phenols, though this may occur from other causes. The blood-picture in general is as follows: "Hemoglobin is high, with normal red-cell count. The whites also run usually under or about 9,000. The number of polymorphonuclears is low, usually below 70 per cent. The lymphocytes are correspondingly increased. Of these the larger forms with angular nuclei and wide unstained borders are in the great majority. The mast cells are infrequent. The ripe eosinophils are about normal. In some specimens one finds many polymorphonuclears with oxyphilic granules. The platelets seemed reduced in number. When studied with Wright's stain, the polynuclears show an increase in the proportion of cells, showing large ambophilic granules, so much so that the observer is struck with the "dark" appearance of the protoplasm. That is, the granules are large and purplish and seem to lie in a mauve cytoplasm. The proportion of these heavily staining cells decreases as the patient gets rid of the toxins. Hence, one can estimate rather closely how intoxicated the patient is by the proportion of these dark cells to the total number of polynuclears." Four cases illustrating the blood-picture and conditions are reported in the article.

FUNCTIONAL HEART DISEASE

It has long been known that Cactina Pillets are especially serviceable in all functional disorders of the heart, as well as in certain phases of the common organic lesions.

They are safe, reliable, and do not manifest a cumulative action. Associated with digitalis, Cactina Pillets act as a valuable synergist, making possible the use of much smaller doses of digitalis in the production of desired effects.

As has been previously said, Cactina Pillets improve cardiac nutrition. Under its use the heart's action is slowed and materially strengthened. No miraculous claims have ever been made for Cactina Pillets, but in suitable cases clinical experience has repeatedly demonstrated its extraordinary value as a persuasive tonic.

THE ATTENTION OF THE CANADIAN MEDICAL PROFESSION IS CALLED TO OUR SALTS OF

BISMUTH

BISMUTH CARBONATE "M. & B." is the lightest on the market and requires a minimum of mucilage to hold it in suspension. It contains less than half the quantity of nitrate suggested by the Pharmacopœia Revision Committee as a maximum.

BISMUTH SUBNITRATE "M. & B." is absolutely white and free from traces of metallic impurities, lead, arsenic, silver, &c. It has by far the largest sale of any Bismuth Salt made in Great Britain.

BISMUTH SALICYLATE "M. & B." was the FIRST true Bismuth Salicylate manufactured. It contains no free Salicylic Acid, and in color and density it is still of unbeaten excellence.

We are the Largest Manufacturers of Bismuth Salts in the World and are in a position to supply it in its purest form.

Obtainable from all Wholesale Houses

MAY & BAKER, Ltd., Battersea, London, S.W.

HORLICK'S MALTED MILK

In Typhoid Fever

Pure, rich milk, combined with an extract of malted grains, highly concentrated, partially pre-digested, palatable, and readily assimilated, makes Horlick's Malted Milk the physician's first choice when selecting a reliable nutrient in the treatment of Typhoid and other low fevers.

"HORLICK'S" has proved invaluable for many years past in the various diseases and conditions in which a complete, well-balanced diet is of vital importance.

Samples sent free and prepaid, to the profession, upon request.

HORLICK'S MALTED MILK COMPANY

Racine, Wis., U. S. A.

Gilmour Bros. & Co., **25 St. Peter Street,** **Montreal, Que.**

When writing advertisers, please mention The Canadian Journal of Medicine and Surgery.

A REMARKABLE MILK TEST

It will be a source of gratification to the medical profession to know that Erindale Farm Dairy is putting out a milk that is, as nearly as possible, free from bacteria. The last certificate issued to the proprietors, Messrs. S. Price & Sons, shows that an examination of their milk contained no bacteria, a result that is phenomenal. It is little wonder that Price's Dairy is receiving the indorsement of the medical profession generally, owing to the excessive care used in the production of their milk. During the nice weather it would be well for those interested in the matter of a pure supply to take a run out to Erindale Farm, which is close to Toronto, and see how scrupulously clean everything about the Dairy is kept.

AFTER MORE RECORDS

The prize list of the Canadian National Exhibition, Toronto, August 24th to September 9th, has been issued. It shows the usual liberal prizes in all departments of live stock, agriculture, and home work, amounting to a total of $55,000. It is also evident that the list has been carefully revised to have it in keeping with up-to-date conditions.

A few of the innovations that might be noticed are provision for competition in breeding horses for strings of five horses; a number of sections added to provide for the newer breeds of poultry; $100 in prizes for onions, tomatoes, and celery in baskets. The last named is a Government suggestion, meant to encourage export of these commodities.

On the whole, the list shows a distinct advance on its predecessors; and, as the attractions will include a review of cadets from all the overseas dominions of the Empire, the Scots Guards Band, and a brilliant historical spectacle, the Siege of Delhi, it is safe to predict another record year for the Canadian National.

The After-Cure of "A Bad Cold."—The young, virile, robust individual, who contracts what is commonly termed "a bad cold," rarely suffers long from such affection, as the superior resisting power of such persons soon overcomes the virulence of the infecting agent and recovery is rapid and complete. It is apt to be very different, however, with those whose circulation is less active and whose phagocytic activity is "below par," due to advancing years or general devitalization from whatever cause. For such patients something more than expectorants or respiratory sedatives is required. General nutritive and reconstituent measures are indicated, and a quickly acting and substantial medicinal tonic almost always materially hastens recovery in such cases. Pepto-Mangan (Gude), with which is combined an appropriate dose of strychnia, is the ideal supportive treatment, as the combination not only tones the circulation and the nervous system, but also supplies in palatable, tolerable and immediately assimilable form the organic iron and manganese needed to revitalize the blood and infuse force and vigor. In the case of young children, it is perhaps wise to depend upon Pepto-Mangan (Gude), without strychnia.

75

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A Journal published monthly in the interests of Medicine and Surgery

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Editorials

THE POTENCY AND THE KEEPING PROPERTIES OF TINCTURE OF DIGITALIS

A matter of considerable importance in medical practice is to have positive information as to the strength of the notable preparations one uses. Thus, in selecting a tincture of digitalis, one should know something definite about the initial variability in the potency of samples of that preparation, made by different manufacturers. It is a fact worth knowing that even standardized tinctures of digitalis deteriorate on keeping.

Dr. Goodhall (Physiological Laboratory, Surgeons' Hall, Edinburgh), who has been engaged in the physiological testing of galenicals for several years, discusses the potency and keeping qualities of standardized samples of tincture of digitalis in a paper, published in the *British Medical Journal*, April 20th, 1912, page 887. During the three years ending December, 1911, he had examined 23 samples of tinc-

ture of digitalis, freshly made by chemists of repute. The standard employed by him was that 3 minims of the tincture should kill a frog weighing 20 grammes, within four hours. Of the 23 samples, 12 were found to be of average potency, 6 were under the average, and 5 were over the average strength. The actual strength of each was indicated, by stating the dose equivalent to the maximum pharmacopeial dose of 15 minims (B.P.).

Average Potency	12	
Under Average Potency ...	6	25:22½:22½:22½:22½:20:18 minims.
Over Average Potency	5	10:9:8:7½:4 minims.
Total	23	

As Dr. Goodhall says: "If these varying results are obtained by manufacturers, who are anxious to produce drugs of standard potency, it would be of interest to know what kind of tincture is made by firms who aim at nothing more than keeping within the letter of the law, as laid down by the pharmacopeia." In reference to the keeping qualities of tincture of digitalis, Dr. Goodhall shows, that when kept under circumstances, such as exposure to sunlight, storage in a room artificially warmed during winter, a standardized tincture of digitalis retains its full activity for one year; but that, after that period, deterioration of its potency to an important extent is likely to take place.

A practical conclusion to be drawn from this observation is, that a standardized tincture of digitalis sold to pharmacists should be put up in one ounce phials. An up-to-date pharmacist, who discards his

tincture of digitalis when it is a year old, will have less compunction in so doing, if it is contained in a one ounce phial. J. J. C.

SWEET SPIRIT OF NITRE

The British Pharmacopeia requires that, when fresh, the sweet spirit should contain 2½% by weight of ethyl nitrite, and that it should never contain less than 1¾% of ethyl nitrite. Care should be exercised in the selection of this preparation, so that it be reliable and of full strength. If it has been kept in a large bottle and exposed to light and air, it will be more or less inert and should not be used for dispensing purposes. This drug was inspected in 1908 by A. McGill, Chief Analyst for Canada. The results of the analysis showed that of 77 samples, taken from all parts of Canada, 28 were genuine, 49 adulterated, showing 63% of adulteration. The analyst also observed that 3 samples contained no nitrous ether whatever. A collection of samples of sweet spirit of nitre was also made in 1911. There were 74 samples, of which 42 were found genuine, 32 adulterated, showing 43% of adulteration. In this last selection, 5 samples contained no ethyl nitrite. Mr. McGill remarks: "It is quite clear that the retail dealer is to be held responsible for the character of the drug in this case. He may be able to throw back the responsibility upon the manufacturer, if he holds a warranty under section 33 of the Act; but in this case he would naturally be

required to prove that the article had not deteriorated, while in his possession." The National Dispensatory recommends that sweet spirit of nitre should be preserved in small, well filled, stoppered vials. The sweet spirit of nitre obtained by distillation may be preserved in the same manner and, if assayed previously to being bottled, requires merely dilution with stronger alcohol to furnish an unexceptionable preparation. J. J. C.

THE NEW HEALTH DISTRICTS OF ONTARIO AND THE DISTRICT HEALTH OFFICERS

The seven districts into which Ontario has been divided for health purposes, and the headquarters of these districts have been determined by the Provincial Government; District Health Officers have also been appointed. District No. 1 comprises the Counties of Essex, Elgin, Kent, Lambton, Middlesex and Oxford, with headquarters at London; District Health Officer, Dr. David Benjamin Bentley, of Sarnia. District No. 2 comprises the Counties of Bruce, Dufferin, Grey, Huron, Perth, Wellington and Waterloo, with headquarters at Palmerston; District Health Officer, Dr. Thomas James McNally, of Owen Sound. District No. 3 comprises the Counties of Brant, Haldimand, Halton, Lincoln, Norfolk, Peel, Welland, Wentworth and York, with headquarters at Hamilton; District Health Officer, Dr. Daniel Alexander McClenahan, of Waterdown. District No. 4

comprises the Counties of Ontario, Durham, Northumberland, Prince Edward, Hastings, Peterboro, Victoria, Muskoka and Simcoe, with headquarters at Peterboro; District Health Officer, Dr. George Clinton, of Belleville. District No. 5 comprises the Counties of Lennox and Addington, Frontenac, Leeds, Grenville, Stormont, Dundas, Glengarry, Prescott, Russell, Carleton, Lanark and Renfrew, with headquarters at Kingston; District Health Officer, Dr. Paul J. Maloney, of Cornwall. District No. 6 comprises the Districts of Parry Sound, Nipissing, Temiskaming and Sudbury, with headquarters at North Bay; District Health Officer, Dr. W. Egerton George, of Haileybury. District No. 7 comprises the Districts of Manitoulin, Algoma, Kenora, Thunder Bay and Rainy River, with headquarters at Fort William; District Health Officer, Dr. Robert E. Woodehouse, of Fort William.

The above mentioned District Health Officers, before taking office, will be required to report for a course of instruction beginning August 1st, 1912. The programme of studies, which has been laid down by the University of Toronto, will include such subjects as chemistry, bacteriology, water and sewage, epidemiology and general public health. The District Health Officers will also be assigned to practical work in the Province, by the Provincial Board of Health, during their course of instruction. It is expected, that the District Health Officers, who have accepted the positions, will be able to pass a satisfactory examination on the subjects of instruction by

Christmas next, or perhaps a little before. Upon the results of this examination the tenure of appointment will depend. J. J. C.

THE RAPIDITY WITH WHICH CERTAIN FORMS OF MEDICINES PASS THROUGH THE STOMACH

In prescribing a medicine to be administered by the mouth, it is important to select that form of the medicine, which is most rapidly absorbed in the stomach and will prove least injurious to the mucous membrane of that organ. Iodide of potassium, bromide of potassium, salicylate of sodium, antipyrin, which are meant to act promptly on the system, are delayed in the stomach, if they are combined with syrups, if taken in milk, if mixed with food at meal time. Drs. Carnot and Nedey, who have investigated, by the experimental method, the rapidity with which certain medicines pass through the stomach, report the results of their findings in *Paris Medical,* 9 Mars, 1912, p. 361.

After dealing with the question in detail, they state that three chief factors have to be taken into account: 1. Concentration (the more dilute solutions of medicines pass through the pylorus rapidly); 2. Osmo-nocivity (medicinal solutions being so much the less hurtful to the mucous membrane of the stomach, in proportion as they approach isotonicity); 3. Provoked secretory reactions (notably the production of acid secretion, which acts chemically on the medicine

and delays the rapidity of its passage through the pylorus.

The passage of a watery solution through the stomach takes all the less time, the more dilute the solution is and the more closely it approaches to an isotonic condition (2 to 3 per cent. of iodide of potassium.) An isotonic solution simultaneously loses its osmo-nocivity; according to the authors, the isotonic solution is the form of choice, when prescribing a medicine and should get the preference, unless when a practitioner is trying to correct the taste of the medicine which he prescribes. Hypertonic preparations (concentrated solutions, mixtures containing syrups, etc.) remain longer in the stomach and for that reason irritate the mucosa by osmo-nocivity and toxic local action.

Medicines, which excite secretory activity in the glands of the stomach (syrup of orange, alcoholic liquids, albumenoid liquids) retard still more the passage of fluids through the pylorus and, besides, excite an acid secretion, which decomposes the medicine used. For instance, iodide of potassium, if combined with an oily vehicle, is retarded very much and to no purpose in its passage through the pylorus and, if the contents of the stomach should be acid, the process ends in the formation of compounds of iodine with fatty bodies.

Hence, leaving aside the question of the taste of a medicine, it is preferable to prescribe isotonic solutions, which pass rapidly through the pylorus. For instance, 1 gramme of iodide of potassium dissolved

in 50 grammes of water will pass through the stomach in about five minutes. Similar results are not obtained when insoluble preparations are administered or when medicines are administered to persons who have abnormal stomachs, especially persons in whom hypersecretion of the stomach occurs. Solutions of medicines, which, in a normal stomach, would not excite a secretory reflex, provoke intense reflex action in an abnormal stomach. The acid secretion, produced by the medicine, modifies the chemical and physical equilibrium of the medicine, as well as the process by which the stomach is emptied of its contents through the pylorus. J. J. C.

TORONTO'S CITY COUNCIL TO BE CONGRATULATED

It was with pleasure that the medical profession of Toronto learned a few weeks ago that at last our city fathers have awakened from their long siesta and have set aside certain monies for the building of a hospital for the temporary detention of the insane, as urged in a recent issue of THE JOURNAL. This has been an absolute necessity for many years past, as, to the disgrace of Toronto be it said, there has been up till the present no accommodation of any kind for the shelter of the insane poor, all of our hospitals for such people being taxed to capacity. We trust that, if found necessary, the corporation will double the sum already appropriated and make the new hospital more than sufficient to accommodate the demands that may be made upon it. W. A. Y.

THE AMERICAN MEDICAL EDITORS' ANNUAL MEETING

Convening this year at Atlantic City the Association of Medical Editors showed their appreciation of the pleasure and privilege afforded them by holding a "record" meeting. The surroundings were ideal, though not in any sense an Editor's Sanctum, but a sun parlor full of light, cooled by soft breezes that brought on their wings the lull and hum of the sea. The members are of a type too brisk and full of the joy of living to listen to the sea's insistent note of "rest and dream"—but certainly the papers read were retrospective, introspective, and a few a trifle perhaps joyously militant with visions of a great future for medical journalism. In the very helpful discussions that followed the reading of the papers, the great number who took part, each with a decided and well reasoned out point of view, kept the attendance large and held the interest throughout the session. Work done, the last evening the banquet was held. Without using stock phrases, usual on such occasions, may we simply say in all sincerity it was one delightful hour. Music, flowers, and in the centre of the room a table, which beside being a bower of roses, was graced by the presence of ladies.

In the minuteness of detail and the thoughtfulness of arrangement for about three hundred guests, Dr. Joseph MacDonald, Jr., former President, showed himself as ever untiring and resourceful, the man who quietly sees that things are done as they should

be. As the banquet was held in the Blenheim, it is unnecessary to say every order was successfully carried out.

As to medical editors as after dinner speakers, they find their tongue as ready as their pen.

Dr. Brickner, Editor-in-Chief of the *American Journal of Surgery,* New York, was appointed toast master, and his clever little loops, sparks and flashes of words, as he introduced speaker after speaker, made one insist on begging, borrowing or stealing two of his absent guests' successes.

"Letter of regret from the shade of Wm. Harvey, who invented a circulation of the blood. As one of the first men scientifically interested in circulation, it seemed to me appropriate to invoke his spirit at an editors' banquet.

"Right proudly did I receive ye message to partake with ye editors in spirit at their gladsome gatheringe. And mournfully must I send ye tydinges that I cannot be with ye, for ye nighte of ye 3rd of June is ye annual convocation of ye Stygian Society of Departed Medical Men, hereat I must holde forthe withe a further Disquisition De Motu Cordis et Sanguinis. Our Society is many times larger than ye largest medical society on youre mundane globe. We call it also Ye Ultimate Medical Society, for it is ye last one that doctors join, and sooner or later all become active members.

"At our meetings will be many whose names are cherished on earth. There is ye venerable Hippocrates, ye founder of ye order; and of ye older mem-

bers I might make mention of Galen and Vesalius, Fallopius and Fabricius and one Paracelsus—an ignorant knave who doth wearie me with much boastinge of hymselfe. Of my contemporaries are Malpighi and Cowper and Steno and the elegent Suydenham.

"Ye Society is filling rapidly with younger spirits —Koch and Pasteur and Virchow, who talk muche of bacteriologie and cellular pathology and other thinges which confuse me, for they do surpasse mine understandinge. Then there are McDowell and Tait and Willard Parker and Senn—a recent member—who talk glibly of opening a human's stomach and snatchings therefrome ye organs that ye Almighty had put into them. I understande not how humans can survive such vigorous treatment and, in truth, I have seene many of these patients on ye Stygian boulevardes.

"Then there are Morton and Simpson, who on earth had strange vapors to inhale that ye poor victime would know not what ye chirurgien does unto him. And there is that pleasant puerperal spirit from your own countrie—Oliver Wendell Holmes. And there are very many yet younger members who do amaze me with ye tellinge of ye wonderfule things ye doctors on earth do now. But they are sympathetic in mine ignorance and kind to me withal. In sooth, they do slap me between mine ethereal scapule and say, "Never mind, Harvey, old top, if you hadn't circulated ye bloode we could not have kept ye pot aboiling." Which is truly a merrie quip, and it doth

amuse me the more for that in this life there is no bloode.

"Then there is Oliver Goldsmith, who is a better poet than he is a doctor. He hath no patience with our scientific discourses, but he beguileth us much with sweet melodies from his flute and even sweeter music in tender verse. I send to ye editors Goldsmith's latest poem which may please them much. And so, adieu.

Here is ye poem of Oliver Goldsmith:

Yet so strangely did Dr. Brickner's Goldsmithian poetry affect the "alleged minds" of the editors, that laughter, not manufactured by champagne, sounded right merrily during the solemn reading by Dr. Brickner of

"Far from th' applauding crowd, from aid apart,
The country doctor practises his art;
In all affairs consulted, council lends—
All neighbors patients, and all patients friends.

"In busy ward, in clinic, college hall,
The city doctor, lab'ring, gives his all.
Each new device and drug within his reach,
His mission is to learn and, learning, teach.

"The army surgeons—soldiery of health—
By sanitation guard the nation's wealth,
'Neath blist'ring sun, where sweeps the tropic storm,
Infested swamp to verdant land transform.

"The editor seeks not the path to fame,
His task to study, balance and proclaim.
The torch, by others lighted, his to bear,
That all alike may common knowledge share.

"Like friars from the priests quite set apart,
The research workers aid, by science, art.
Each fact of life, like those facts learned before,
Though small, is great, because it leads to more.

"And thus great Medicina's art is shared.
And none may say that any can be spared.
All, in their spheres, towards common object turn—
Disease to banish and life's mysteries learn.

"And so each labors 'til his day is done
And, twilight fallen, meets his setting sun.
Content with striving, now released from strife,
He learns, at last, the mystery of life.

There is so often in life one note that causes a hush in the merriment, and the minor chord stilled as the name of Surgeon General Wyman was spoken and then honored by all in silence. "The President" —suddenly called to rest during his presidential year, his name will ever stand an honor on the parchment roll of Medical Editor Presidents.

As toast after toast was pledged, let it be written that every man had something worth saying, and that the language and even the jest bore the hall mark of gentlemen. The tribute to "Woman," by Dr. George Butler, of Chicago, was a garland of reverence, and "The Realm of Fact and Fancy," by Frederic Hoffman, of New York, made one think that the evening was well spent that closed with the uplift of a beautiful thought, and drowsy with the perfume of roses.

W. A. Y.

A GLANCE AT THE AMERICAN MEDICAL ASSOCIATION AT ATLANTIC CITY

Last spring the hall on Young's Pier that was to have been the meeting place and exhibit hall of the Association was burned down. Other arrangements were soon made by the wizards that live in the city by the sea, and the new theatre secured for the opening meeting and inaugural of President Abraham Jacobi, and a very good hall secured in which to place the exhibits. As the Association has several times met at Atlantic City it would indeed be a twice told tale to speak again of the desirability of this resort for conventions. The hotels are so numerous that they afford great comfort to the physicians and their families, often very hard to obtain in many of the larger cities. Beautiful weather, a large attendance, many sections all so full of interest that the only regret of the physicians could be that the programme tried to "tabloid" a year's work into a day. Everywhere the word "research" is being "worked" overtime. Poor young specialism is "worked" to a shadow, but fortunately the World's "Johns and Elizabeths," especially the Elizabeths, demand and voice the request "that his shadow may never grow less!"

Governor Woodrow Wilson honored the opening day by his busy presence, and gave a very practical and amusing address. He remarked that in his boyhood a family of nine lived, thrived and arrived under

the care of one grand old doctor. His own little family was still living after he had employed no less than nine specialists during the last twelve months.

Very interesting always is the opening gathering of a large medical association, and how soon one learns to classify the individuals—the spectacled, strong, calm looking physicians, the oftentimes small of stature with the quick as a flash look in the eyes of the surgeons, but the specialists still keep one guessing; it will take another twenty-five years to fix their faces into set types.

Not only concentration upon and contemplation of scientific propaganda will alter the countenance of the body medical in America, but the introduction of a new nationality so to speak, made by the blending of races. As this is only a hurried screed of impressions and not an editorial, we take the liberty of a wide license.

Just a word of illuminating description. The place—the stage of the theatre at Atlantic City—the scene, the inaugural of the A. M. A. The President, Dr. Murphy, of Chicago, opening the session. He called upon Father McShayne to pronounce the Invocation, and over all the large audience the clear voice of the Irish Priest commended to the attention of the All Father the great audience of men of all kinds of creeds.

Then Mayor Bacharach, of Atlantic City, gave an address of welcome, after which Dr. Murphy introduced the grand old man, President elect Dr. Abraham Jacobi, of New York.

Old Dr. Abraham Jacobi, the little man with the big brain and fascinating in his quaintness, memorable because of his fixity of purpose and genuine earnestness, gave his address and took his place worthily as President.

The orchestra played and Old Glory on the back of the stage waved away caught by the breeze from the wings, and wise Uncle Sam, whom nobody really saw sitting in the prompt box, must have grinned as he looked around for someone made in America for at least an understudy part. However, he whispered to himself (a stage whisper of course) "It's all good grist for my mill." Perchance he is right and is building better than he knows.

What magnificent work for humanity the medical men of all associations are banding together to "do." As our cities grow, the crying need of the moment grows more and more urgent. Every time associations meet, they suggest a reform along sanitary lines, or by research give to and confer upon mankind a remedy of priceless worth.

In this new century, as in the past, the medical men lead the van, when all mankind is awaking to the fact that the banner of civilization, that has writ large upon the one side "Excelsior," must, upon the other side, have blazoned in letters of gold the word —Service.

It is of units all such great associations are made up—of such men—"even as you and I."

W. A. Y.

THE REORGANIZATION OF THE MEDICAL COUNCIL

The Medical Council at its meeting, just concluded, again put off the evil day. The Committee on Reorganization has recommended that there be ten representatives elected from Districts, one from each of the universities (Toronto, Queen's and London), and two from the homeopaths. This report was ordered to be printed in this year's announcement, and will again be considered next year. In the meanwhile the boys hold on to "the good thing."

This cutting down of the Council by half is the result of the agitation inaugurated by this JOURNAL, but we are not content with any such half measures as this. The profession of Great Britain and Wales have but four elected representatives on the English Medical Council. Surely the same number should be quite sufficient for this Province. On what basis this plan was formulated it is hard to even guess, for the *forty* odd homeopathic practitioners of Ontario are given *two* representatives. The profession of Ontario must control the Medical Council. Let it consist of *four elected representatives, one homeopath* and *three from the universities* and then, under all circumstances, the control will be in the hands of the practitioner. Membership in the Council is an honor, not "a snap." The members of the English Medical Council are unpaid. The honor of such a position should be sufficient remuneration for any member of the Ontario Medical Council. W. A.

THE OSTEOPATHIC BILL

The profession will read with contemptuous amusement Section 2, Sub-section 3, of the bill *introduced* by the Legislative Committee of the Council of the College of Physicians and Surgeons of Ontario, but *thrown out* by the Legislature, much to the disgust of the Medical Council. "Notwithstanding anything in this Act contained, the Registrar shall also enter upon the Register and shall register as practitioners of Osteopathy all persons who, at the date of the assent to this Act, hold diplomas granted by a School or College of Osteopathy, approved by the Ontario Medical Council and by the Lieutenant-Governor-in-Council." The Legislative Committee of the Council was willing to register *anyone with a diploma in Osteopathy,* even though that diploma had been obtained after but six months of study. The members of the Ontario Legislature were assured by the Osteopaths that some of the best Osteopaths had been produced after such *extended* courses of *six months,* but even the *endorsation of the Medical Council* failed to convince them of the propriety of putting such men on the medical register. The Medical Council has always refused to put on the register the name of any medical practitioner who had not studied at least *four Sessions of eight months each.* It now proposes to put on the register the name of any Osteopath who has a diploma *no matter how short his term of study may be,* and to grant to him *all the privileges of membership of the College of Physicians and Surgeons.* It is to laugh!

Hundreds of Canadians, who have taken, in the Medical Colleges of Ontario, the courses prescribed by the Medical Council, have been *exiled to the United States* by this same Medical Council which now so joyously throws open its register to aliens and graduates of American Colleges who have *not fulfilled a tithe of its requirements.* So lightly does the Council hold its duty of protecting the public that *it was prepared to register anybody from anywhere,* United States or Canada, *holding a diploma of Osteopathy.* Its soul was filled with compassion. *Why demand a diploma?* Some poor chap had never been able to attend a College of Osteopathy for even six months, so this compassionate Medical Council—so well known for its generous treatment of medical students—proposed "the Registrar shall register as practitioners of Osteopathy *all persons who,* within six months from the date of assent as aforesaid, or such time as the Lieutenant-Governor-in-Council may fix, *shall pass an examination* before a Board of Examiners appointed by the Lieutenant-Governor-in-Council." Why bother about saying what the examination is to be upon? That is a mere detail. *Bible history and geography perhaps!* Why say six months at all? Even "such further time" appears almost too definite and precise. Why not register them without examination and save trouble?

It was needless for the Ontario Medical Council to place itself on record at its last meeting as willing to enter on its register the names of men who had not fulfilled all the requirements of the Medical Act. The proposed Osteopathic Bill was sufficient and convincing proof of that willingness. W. A.

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Editor:

J. J. Cassidy, M.D.

45 Bloor St. E., Toronto

Managing Editor:

W. A. Young, M.D., L.R.C.P., Lond.

145 College St., Toronto

Surgery:

N. A. Powell, M.D., C.M., Professor of Medical Jurisprudence, Toronto University; Senior Assistant in charge, Emergency Department, Toronto General Hospital; J. F. W. Ross, M.D., Professor of Gynecology, University of Toronto; Gynecologist, Toronto General Hospital.

Clinical Surgery:

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Militia and Naval Medical Services and Ambulance:

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Physiotherapy:

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Pediatrics:

Allen Baines, M.D., Toronto; Associate Professor Pediatrics, University of Toronto; Physician, Hospital for Sick Children; A. R. Gordon, M.D., Toronto; Senior Medical Assistant, Toronto General Hospital; Helen MacMurchy, M.D., Toronto.

Medicine:

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Clinical Medicine:

Alexander McPhedran, M.D., Professor of Medicine and Clinical Medicine, Toronto University; Physician, Toronto General Hospital; Lewellys F. Barker, M.D., Professor of Medicine, Johns Hopkins University, Baltimore, Md. H. B. Anderson, M.D., Toronto; Associate Professor of Clinical Medicine, University of Toronto; Physician, St. Michael's Hospital.

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Gynecology and Obstetrics:

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Pathology:

W. H. Pepler, M.D., C.M., Surgeon Canadian Pacific R.R., Toronto; Junior Medical Assistant, St. Michael's Hospital; and J. J. Mackenzie, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Pharmacology and Therapeutics:

A. J. Harrington, M.D., M.R.C.S., Eng., Toronto.

Ophthalmology:

J. M. MacCallum, M.D., Toronto, Senior Assistant Eye Department, Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Nose, Throat and Ear:

Perry G. Goldsmith, M.D., 84 Carlton St., Toronto, Laryngologist and Aurist, Provincial Institution for the Deaf and Dumb; Senior Assistant Ear, Nose and Throat Department, Toronto General Hospital.

Dermatology:

D. King Smith, M.B., Tor., Toronto; Demonstrator in Pathology, Toronto General Hospital.

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Original Contributions

MEDICAL JOURNALISM IN YEARS GONE BY*

BY W. A. YOUNG, M.D., L.R.C.P., TORONTO.

To medical journalists, it is a most interesting study to look back through the old tomes of an Academy of Medicine or medical library and find out something of medical journals, what they were and what they contained a hundred years ago. I recently devoted a little time to this, and beg to present to the American Medical Editors' Association a few notes on this subject culled from other publications. You will, therefore, pardon me if, of necessity, I have to present a paper composed largely of other men's words.

At the beginning of the 19th century medical journalism in Germany and France was in advance of that of England. Not only were there a number of general medical and surgical journals in existence, but the publication of journals devoted to some special phase of medical science (gynecology, physiology, etc.) had already begun. (See the article by Sudhoff.)

In regard to the early history of medical periodicals in Great Britain the centenary number of the *Edinburgh Medical Journal* says:

"Amongst the features of the eighteenth century must be noted the origin of periodic, scientific and medical literature. At first the contributions to medical science occurred at rare intervals; sometimes annually, sometimes less frequently. Amongst such publications may be mentioned: *Medical Observations and Inquiries* by a Society of Physicians in London, which appeared from 1757 to 1784; *Medical Transactions*, published by the College of Physicians in London from 1768 to 1785; *The Memoirs of the Medical Society of London*, from 1787 to 1805; *The Medical*

*Read before the American Medical Editors' Association, Atlantic City, N.J., June 3rd, 1912.

Spectator, from 1791 to 1793, and the *Annals of Medicine,* from 1798 to 1804. These, and other publications of less moment, were undoubtedly the origin of the periodical literature of medicine in this country (Great Britain).

"During the early years of the last century, several suggestions seem to have been considered for the establishment of a journal or a review which would appear more frequently than any of the publications which have been referred to. Both in London and Edinburgh proposals of the kind were entertained, but it was in the northern capital that effective steps were taken."

In 1805 the *Edinburgh Medical and Surgical Journal* appeared as a quarterly, under the editorship of Andrew Duncan, Jr.

The periodical was characterized "by tolerant views and Catholic aims." It contained articles on medicine, surgery and medical jurisprudence.

In the parts "which constituted the medical journal of a hundred years ago, the observant reader will recognize most of the departments of a modern periodical; to adopt embryological language, for the nonce, their *anlagen* were in existence in 1809, but, as one sees, they have developed wonderfully since then." (*Brit. Med. Journ.,* 1909.)

"In 1788 the Medical Society of New Haven County published the first volume of transactions ever issued by a medical society in this country (the United States). Several attempts were made to establish strictly medical periodicals, but they were all short-lived, partly from lack of intrinsic merit and partly from failure of professional support." (Landis.)

The first American medical periodical consisted of a series of articles translated from a French journal. It was published about 1790 in New York under the title, "A Journal of the Practice of Medicine and Surgery and Pharmacy in the Military Hospital of France." This periodical was apparently not in existence at the beginning of the 19th century.

The Philadelphia Medical Museum, edited by Dr. Coxe, was published from 1804 to 1811. *The Baltimore Medical and Surgical Recorder* was established in 1808 by Dr. Tobias Watkins as a quarterly, but went out of existence in the following year.

The American Medical and Philosophical Register was published from 1810 to 1814.

"As its title indicates it was not devoted to medicine exclusively, but contained other miscellaneous papers of varying scientific interest." (Mumford.)

The New England Journal of Medicine and Surgery, quarterly, was first published in 1812, was joined to the *Intellingencer Weekly* in 1823 and was finally merged into the *Boston Medical and Surgical Journal* in 1828.

Philadelphia Journal of Medical Science which later (1827) became the *American Journal of the Medical Sciences*, was not published till 1820. Dr. Nathaniel Chapman, of the University of Pennsylvania, was first editor.

Fassett says:

"The earliest types of American medical journalism were dignified and scholarly, and but few of them exhibited any 'news' qualities until the middle of the fourth decade."

In *The British Medical Journal*, I find an article entitled "The Medical Journal of a Hundred Years Ago." The writer of it says: "The unreflecting reader of the periodical medical literature of the present day does not realize the richness of the possession which is his. In this month of May, 1909, let him look for a minute or two into the *Medical and Physical Journal*. This was first published in 1799 and continued under that title until 1814, when it became *The London Medical and Physical Journal*. The issue of May, 1809, consists of 88 pages of octavo, and, as it was a monthly publication, these pages constituted the whole supply of mental pabulum given by the editors to their readers for May. The publication had been established in 1799 with T. Bradley and F. M. Millich as editors; and as two volumes appeared each year, this volume was xxi. It continued under its original title till 1814, when it became the *London Medical and Physical Journal*, and was conducted by Samuel Fothergill. The contents of the May number consisted of some thirteen original articles, most of which take the form of letters to the editors, are not preceded by any indication of the subject with which they are to deal, and carry the writer's name only at the end; these articles, which occupy 62 out of the 88 pages, are followed by 12 pages in which are analyzed very fully the articles appearing in

the recent number of the *Edinburgh Medical and Surgical Journal,* then comes an editorial of 5 pages on the "Trial of Mr. Angus and Subsequent Pamphlets;" then a report (of 3 pages) of the diseases of Edinburgh for March, 1809; then a short account of diseases in an Eastern District of London from March 20th to April 20th, 1809; then some Udiometrical, Thermometrical and Barometrical Statements, by Dr. T. Pole, of Bristol; then an angry letter to the editors, beginning "Gentlemen," on the subject of Vaccination; and the number is brought to a close with some paragraphs of Intelligence, including the statement that "Dr. Adams, having finished his Inquiry into the Laws of Epidemics, is at leisure to complete his edition of Mr. Hunter's Treatise on the Venereal Disease."

Let us look in detail at one or two of the contents of this journal. The place of honor is given to a contribution from the pen of Robert Jackson, M.D., No. 3 Panton Square, London, dated March 20th, 1809. We may note in passing that the practice of adding the writer's address to his communication—which we are, perhaps inclined to associate with transatlantic medical journalism—was common, if not general, among our medical ancestors in London a hundred years ago; we also observe that in those early days manuscript was not allowed to lie long wasting its sweetness in the editorial cupboard.

Dr. Jackson's article, which as usual is without a title, begins well. We read:

> Gentlemen,—As you seem always ready to put before the public such hints or suggestions on medical subjects as you may receive from persons of credibility and good intention, I am induced to submit to your consideration a short notice of the effects of a remedy which some may perhaps regard as too vulgar to be admitted in the physician's catalogue, or which others may be disposed to disparage, as it is not brought from a foreign country, or does not find a place in the apothecary's shop.

The reader's curiosity cannot fail to be roused and his appetite whetted by these introductory remarks, and the writer does not long keep him in suspense. Dr. Jackson promptly reveals his

secret; like an earlier writer he has a "Naked thought" for which he wishes at once to find suitable apparel.

> The spider's web (vulgarly cobweb) is known to many of the common people as a cure for fever and ague; but I believe the few of the regular practitioners have yet employed it on that or any other account.

The secret is out! Then the writer proceeds to say that he got the hint in the year 1800 from the late Dr. Gillespie, of Edinburgh, "a man of great candour and sincerity of character," and that he had himself tried the remedy with the best effect upon "some intermittents" in the army depot at Chatham. A Sergeant Anderson's case is mentioned; his ague attacks yielded before the assault of the cobweb pill. Upon a soldier of the Buffs recently returned from the West Indies—it will be remembered that it was in 1809 that Britain captured Martinique and Guadeloupe—a cobweb pill had so marvelous an effect that "in less than a minute he was perfectly tranquil." Other remarkable successes are reported, and it is thought that the usefulness of the remedy may be extended to hydrophobia, "for its tranquillizing effects." There is to be no secrecy; "pure cobweb is to be procured and made into pills, each containing 4 grains." So we see that a hundred years ago the doctors of London were being counselled to fight malaria with the means employed by spiders to capture flies. Now, for the same purpose, we attempt to exterminate the culex with our mosquito brigades, or at least try to keep off the mosquitos with our nets. What verdict, we wonder, will the medical journal of 2009 be passing upon our 1909 methods?

The second article is one "Epidemic Measles," by Dr. Ferguson, of Aberdeen. In the course of the paper the writer refers to a personal experience he had. He was examining an abscess on the thigh of a patient suffering from smallpox; he became faint and ill, and in a few days was found to be affected with "Violent scarlatina anginosa." He argues that, "from the putrefactive process of smallpox, contagion may be produced which will occasion other infectious diseases." The editors are not inclined to agree with Dr. Ferguson, and courteously but firmly tell him so, in a note at the end of his communication. They say:

> In the interesting account Dr. F. gives of his own case, we should suspect that the disease in his throat and subsequent efforescence on his skin, was the effect of putrid matter applied by effluvia to the semicuticular and highly sanguiferous part, the throat.

The observation is, at any rate, of interest (whatever be the explanation) in view of what is now known regarding mixed infection.

There are surgical as well as medical articles in the journal. "Verax" tells of "a nobleman of considerable importance in State" who had an accident which produced a seriously contused urethra; the treatment which was successful is described. Regarding the pseudonymous "Verax" there is a footnote to the effect that the name of the author, "which is highly respectable," is in the possession of the editors. There are also articles on permanent stricture (by Dr. Roberton); on the use of stimulants in burns (by "Philanthropus"), illustrated with a plate showing a bed for nursing such cases; on wound of the scrotum (by Mr. Scott); and on lockjaw and tetanus (by Mr. Howship). Midwifery is represented by an article on that fertile subject of articles, the use of the forceps; in it the author points out that there are difficulties in the application of the forceps when the child's head is on the perineum! An expression is used in this article which is evidently the equivalent of our modern term, the "caput succedaneum;" the writer calls it the "presenting cone of integuments."

Among the more general papers in the journal are two on the trial of Mr. Angus for murder and on the so-called Liverpool controversy which followed it. An explanation of this matter would occupy too much space; but it was a *cause celebre* of the time, and we may return to it again. There is an unsigned letter on what the writer calls "A Fraud of Authors." The fraud consists in the publication of second editions of medical works with additions, corrections and improvements, to the detriment of the purchasers of the first edition. The writer is indignant:

> How think you, do the purchasers of the first edition feel? Why, that they have been buying a work, and that perhaps at an expense (sic) which they could but just afford; and in

the short space of a year, or year and half, it is become of scarcely any value. . . . Is this fair to the purchasers of the first edition, who have paid the first compliment to the author and who by so doing, and by speaking of the work as it merited (probably), have been the cause of the rapidity with which the first sold. Is it honorable? Is it just?

The writer gives some details and closes with:

Pray, Mr. Editors, take up this matter in the behalf of such unfortunate men as myself. . . I feel grievously hurt.

In a footnote the editors indicate that they publish the letter with hesitation; but as a similar one had appeared in a rival journal, they could not, "without the suspicion of great partiality," refuse it a place. Certainly there was a refreshing frankness and an almost childlike self-revelation in the letters and in the editorial comments on them of the medical journals of a hundred years ago.

Dr. A. D. Edwards, Medical Officer of Health at Bournemouth, in an article appearing in *The Practitioner* and entitled, "An Old Medical Journal," writes:

Wandering through an old gentleman's library recently, I came across the *London Medical Repository* for the year 1815. As in the days of childhood one used to sit on the floor by a heap of unexplored books and be wafted to the realms of fairyland, I sat down and turned over the pages of this medical journal of a hundred years ago.

The strange hygienic lore of the ancient Greeks who burned sulphur in their infected dwellings and performed crude surgical operations makes us wonder at the realization by their philosophers of the appropriate measures to be taken against disease; as also do the commands of Moses to his people, when apparently they had been exposed to infection, indicate a knowledge of infectious diseases empirical, perhaps, which is startling: "Every thing that may abide the fire, ye shall make it to go through the fire and it shall be clean. . . . and all that abideth not the fire ye shall make go through water. And ye shall wash your clothes on the seventh day, and ye shall be clean and afterward ye shall come into the camp." Indeed, much of the Mosaic instruction concerning hygiene might with advantage be incorporated into our modern by-laws.

But the less ancient wisdom of the *London Medical Repository* of 1815 is interesting mainly as indicating the state of medical knowledge before the great advance in the science and art of the medical profession—an advance which continued gradually until the discovery of anesthetics and antiseptics accelerated its speed. So that the progress during the past forty years has been greater than that which took place in a thousand previous years.

The Medical Repository was published in New York from 1797 to 1824, and is generally recognized as the first medical journal of importance to be published in the United States.

A treatise on the "Hereditary Properties of Diseases," written by Dr. Adams in 1814, received keen criticism from the *Repository*. Says the editor: "If a disease appear in several successive generations of the same family, nearly at the same period of life, without being induced by any external cause, such a disease, we humbly conceive, may with the greatest propriety be denominated hereditary." "No," exclaims Dr. Adams, "the disposition to it only is hereditary." "But, surely," says the editor, "this is a mere play upon words!"

Joseph Adams, M.D., F.L.S., appears to have been out of favor with the *Repository*. The criticism of his treatise, although more or less favorable to the work, charges the author with "one fault which we regret to see in any man of talent—a dread lest the public should forget how much it is indebted to him." Now this is rather subtle sarcasm, particularly when it is continued into the Virgilian quotation: "*Sum pius Aeneas fama super aethera notus.*"

The January number of the *Repository* concludes with an interesting list of the diseases and deaths recorded by the parish clerks of London during the year 1814. "Jaw locked" accounted for five persons; "bit by mad dogs," 2; smallpox, 638; killed by a stag, 1; and rash (apparently undiagnosed), 1; "inflammation," which appeared to be a vague but widely-spread condition, accounted for 1,008 cases; 2 people died from surfeit, whilst one poor mortal died from "grief," and one, curiously enough, succumbed to "over-joy." What a picture of humanity may be imagined in these latter deaths—the sudden grief that bears the sufferer beyond the grip of human sorrow; the swift onset of joy too great for the frail frame to bear.

An interesting indication of the method treatment of fever is given in the same number of the journal by Dr. Dowthwraite, who says: "The pulse was 140 in a minute; and the patient had experienced three shivering fits in the course of the preceding night. . . . I did not hesitate to administer muriatic acid in water, which proved ultimately successful, although she experienced several slight shiverings after its first exhibition." The good doctor took post hoc for propter hoc; and nowadays some of us still fall into the slough of the fallacy.

The scepticism of the editorial mind is well evidenced in the account of a case of "periodical jacitation" recorded by Dr. Watt of Glasgow, wherein the patient, a child of ten years of age, "was seized with a propensity to turn round on her feet like a top." (Later she was "attacked with a propensity to stand on her head.") The sceptical editor, referring to the case as a violent form of chorea, says: "The principal part of this extraordinary history Dr. Watt had from the father of the child, and its marvellous events have probably received a coloring from the feelings of a parent, and from a propensity in the human mind to make every narration interesting by rendering it incredible." How applicable, even as an editorial comment, to the writings of modern journalists!

Indeed, throughout the journal the personality of the editor is unavoidably in the foreground, and his role as schoolmaster to the profession of his day is evidenced by his warning: "We must again repeat our caution that the fomes of infection be not conveyed by means of the practitioner."

The February number of the *Repository* concludes with the announcement that "Dr. Watt's letter shall certainly appear in the next number; obligations to numerous correspondents alone prevented its publication in the present"; and with the statement that the journal will be sent to the colonies and foreign countries at a "charge (inclusive of postage) of three guineas per annum."

Dr. Watt's letter eventually appeared, and was devoted to the upholding of his theory that the decrease of smallpox on account of vaccination resulted in an increase in the liability of children to contract measles. Robert Watt, M.D., was severely criticized by the editor. "Without meaning offence, we really

must treat this paragraph as containing proofs of the most pertinacious adherence to a speculative opinion and the force of prejudice, of any we ever met with from a learned member of a liberal profession." The editorial comment runs on: "There are those who '*melius pejus prosit, obsit, nil vident nisi quod lubent.*'"

In the same number of the journal there is a remarkable account of an operation for loose cartilage in the knee-joint by Dr. William Williams of Llandovery, who (in the days before anesthetics were known) obtained healing by first intention after the removal of a loose cartilage from the knee-joint of a farmer's boy. In "about a week" after the operation the patient was allowed to walk, "and has never since felt any uneasiness in the joint." The account of the case concludes suggestively: "How far the fact of the existence of this morbid phenomenon (loose cartilage in the knee-joint) in three successive generations may tend to prove it hereditary; and how far the success attending the operation in this case may justify the adoption of the same measure in similar instances, "future observation and experience can alone determine." The modesty of a Welsh practitioner concerning his success in an operation which even the most skilful modern surgeon attempts with some trepidation is remarkable.

One is inclined to regard the modern journalist's style of writing as a plant of recent growth, but the following, taken from the *Repository,* is surely modern in form, although 1815 in date: "The melancholy fate of M. Schainger, a chemist of Vienna, who died lately from the application of prussic acid to the naked arm, gives more than ordinary interest to the following paper." The paper referred to contains an account of the experiments of a German professor of chemistry, who prepared an alcoholic solution of prussic acid, which he showed to some friends who were dining with him," and on leaving the table he forgot to carry it away. The servant, in clearing the table, finding this liquor agreeable to his palate, drank a small glassful of it, and died in two minutes, as if struck down by apoplexy."

An interesting division of the causes of pulmonary consumption is given in a later number of the *Repository*: " . . . . one arising from employments, that is, the application of some

material applied in the form of a fine powder to the air cells of the lung; and the other arising from contagion." This statement is remarkably accurate in the light of modern knowledge, which traces a predisposing cause of phthisis to such occupations as that of the stonemason.

In a note on the medical practice of the natives of India, it is interesting to find that "all fractures and dislocations are consigned to the pooters, a caste of people abounding in Hindoostan for making the jars of red clay so universally used. The potter places the limb of his patient in what he considers the best situation and then covers the part with moist clay; this, when dry, fixed the limb."

The ravages of consumption during 1815 are indicated in the "observations on prevailing diseases," where a case is quoted of "a lady who had just buried her last two children, eleven others and her husband having within a few years fallen victims to this fatal disease."

In view of the occurrence in more recent times of cases of mental breakdown due to religious revivals, it is not surprising to find in the *Repository* a case of demonomania due to the preaching of "a set of priests called missionaries." One of the sermons has for its subject "Hell," and to heighten the effect of the frightful picture the preacher took a skull in his hand, and, having raised a doubt regarding the soul to which it belonged . . . he cast it from him with such violence that from that moment a morbid change took place in the system of the lady who is the subject of this relation." The return to sanity of this poor demented soul was attributed to several peals of thunder, one of which was so particularly loud that "She was agitated and frightened and recommended herself to God."

In the year of the Battle of Waterloo one might expect references in a medical journal to the European wars, but none is found; even the notes on gunshot wounds deal only with the surgical facts of the case, and contain no indication of the place where the wounds were obtained.

And the June number of the *Repository*, published perhaps on the very day of the great battle, has no echo of the strife. Quietly the editorial quill has recorded the careful investigation into the subject of "Fish-poisoning," and the able and stimulat-

ing article on the subject ends in its dignified and stately manner: "I pretend to nothing more than to point out a path, and to conduct enquirers to the threshold; where, if they are so disposed, they may enter and explore the mysteries of nature and develop her most secret operations."

Lest I weary you, I shall refrain from taking you back any further on the interesting "Road to Yesterday" in medical journalism. This seems to have been a year when we have been privileged to pause in the day's occupation to look backward as we observed the centenary of a great man who charmed a nation with his novels. Again we pause to place an "Immortelle" upon the grave of one of our greatest men in the field of medical science. From the past we learn so much, even in medical journalism, "with its stilted phrase, as the fashion was in those old days." But, alas, we feel that its dignified style must stay in the past, like the stately minuet danced to fitting music. To-day is full of hurry and noise, and the medical journalist must dance a livelier measure, else the volumes of his journal will occupy a dusty shelf in a neglected corner of the modern physician's library.

Nevertheless the opportunity for valuable work is great, "For to-day, Child of Man, tend thou charily the minutes, the Harvest of thy Yesterday, the Seed-Corn of thy Morrow."

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Society Proceedings

THE CANADIAN MEDICAL ASSOCIATION

THE forty-fifth annual meeting of the Canadian Medical Association will be held in Edmonton on August 10, 12, 13, 14.

The convention will be called to order Saturday afternoon, August 10th, at 2 p.m., when business of general interest will be taken up.

Meetings of the respective sections will begin on Monday morning, August 12th, at 9 a.m., and be continued till 12 a.m. Wednesday.

The addresses on Medicine and Surgery will be delivered by A. D. Blackader of Montreal, and A. E. Giles, of London, England, respectively, on the afternoon of Monday, August 12th.

A symposium on Tumors of the Breast, with special reference to malignancy, will be presented, Dr. A. Primrose, Toronto, giving the surgical, and Dr. S. Pierce, Winnipeg, the pathological aspect.

A public lecture by Dr. Adami, Montreal, will be given Tuesday evening, August 13th, at 9 p.m., followed by a reception.

The public lecture by Mr. Sturm, of Chicago, on the Economics of Hospital Planning and Management will be given Tuesday afternoon at 4 p.m.

Attention is drawn to the list of papers promised, to which may be added additional papers before the final programme is published.

The Canadian Medical Protective Association will hold a meeting at the close of the afternoon session of the second day.

Information Bureau: Board of Trade Rooms, King Edward Hotel.

Intending delegates and their friends should not fail to obtain standard certificates, and buy a single ticket at home station in order to obtain return fare free.

FIRST DAY—AUGUST 10TH, SATURDAY.

10.30 a.m.—Registration, Payment of Fees, and Meeting of Executive Council.

2.00 p.m.—General Meeting.

Installation of President.

Addresses of welcome by Lieutenant-Governer Bulyea, Mayor Armstrong and old-timers.

Report of Chairman of Committee on Arrangements.

Reading of Minutes of last General Session.

Report of General Secretary of last General Meeting.

Election of Association's Members to the Executive Council.

4.00 p.m.—Automobile tour in city.

7.30 p.m.—River trip.

SECOND DAY—AUGUST 12TH, MONDAY.

9.00 a.m.—Meetings of Sections.

1.00 p.m.—Lunch at place of meeting.

2.00 p.m.—General Meeting.

1. President's Address.
2. Address in Surgery, A. E. Giles, London, Eng.
3. Address in Medicine, A. D. Blackader, Montreal.
4. Meeting of the Canadian Medical Protective Association.

4.00 p.m.—Garden Party.

9.00 p.m.—Smoker.

THIRD DAY—AUGUST 13TH, TUESDAY.

9.00 a.m.—Meetings of Sections.

1.00 p.m.—Lunch at place of meeting.

2.00 p.m.—Meetings of Sections.

4.00 p.m.—Public Lecture by Mr. Sturm on the Economics of Hospital Planning and Management.

4.30 p.m.—Garden Party, University Lawn.

9.00 p.m.—Public Lecture by Dr. Adami, Montreal, and public reception.

FOURTH DAY—AUGUST 14TH, WEDNESDAY.

9.00 a.m.—Meetings of Sections.

11.00 a.m.—Election of Officers.

2.30 p.m—Members entertained by Edmonton Exhibition Association.
7.00 p.m.—Trip to Yellowhead Pass.

SECTION OF MEDICINE.

Papers have been promised as follows:

1. A New Test for Occult Blood and Its Comparative Value—Dr. R. H. E. Hardisty, 190 Peel Street, Montreal.
2. Coroner's Court in Canada—Dr. D. D. McTaggart, Montreal.
3. Mental and Neurologic—Dr. Campbell Meyers, 72 Heath Street, Toronto.
4. Tubercular Meningitis—Dr. B. D. Gillies, Vancouver.
5. X-ray Diagnosis—Dr. C. V. Lockett, Vancouver.
6. Address in Medicine—Dr. Blackader, Montreal.
7. Infectious Diseases—Facts, Fallacies, and Speculations—Dr. H. W. Hill, Minneapolis.
8. The Results of Treating 82 Cases of Tic Douloureoux, by Injections of Alcohol—Dr. D. A. Shirres, Montreal.
9. Diabetes, 1,500 Cured Cases—Dr. Hodgson, Wankesha, Wis.
10. Seven Years of Progress in Ontario Hospitals for Mental Diseases—Dr. S. Ryan, Kingston.
11. Typhoid and Pleurisy—Dr. F. C. Finley, Montreal.
12. Gastric Ulcer and Treatment—Dr. E. W. Montgomery, Winnipeg.
13. Obesity—Dr. J. A. McArthur, Victoria.
14. Weir-Mitchell Treatment as Applied to Certain Cases of Advanced Tuberculosis—Dr. H. A. McCallum, London.
15. Treatment of Aged—Dr. Forrest Leeder, Victoria.

Papers have also been promised by Dr. W. F. Hamilton, Montreal, and Dr. Jno. A. MacGregor, 331 Queen's Avenue, London.

SECTION OF SURGERY.

Papers have been promised as follows:

1. Anesthesia by Intra-tracheal Insufflation Method—Dr. G. E. Armstrong, Montreal.
2. Genito-Urinary Surgery—Dr. Brassch, Rochester.
3. Shock: Its Nature, Treatment—Dr. W. Webster, Winnipeg.
4. Displaced and Floating Kidney in Woman—Dr. Cuthbertson, Chicago.

5. Breast Tumors, with Special Reference to Malignancy—Dr. Primrose, Toronto.
6. Surgical Treatment of Gallstones; Indications for Technique and Results—Dr. Geo. Bingham, Toronto.
7. Injuries of Abdomen Without External Wound—Dr. MacKinnon, Guelph.
8. Successful Extraction one 2-inch Nail from Child's Right Bronchus, after One Year—Dr. Speechley, Pilot Mound, Man.
9. Skin Transplantation to Replace Lost Tissue, etc.—Dr. Lehman, Winnipeg.
10. A New Method of Treating Habitual Dislocation of Shoulder Joint—Dr. W. J. Evatt, Winnipeg.
11. Skin Grafting Following Burns—Dr. C. M. Henry, Yorkton, Sask.
12. Ureteral Calculus—Dr. W. G. McClean, Winnipeg.
13. Surgical Treatment of Exophthalmic Goitre—Dr. H A. Bruce, Toronto.
14. Operative Treatment of Fractures—Dr. R. E. McKechnie, Vancouver.
15. Surgery—Dr. Giles, London, Eng.
16. Gastric Surgery: A Clinical Study—Dr. J. E. Elder, Montreal.
17. Administration of Anesthetics—Dr. J. W. Thompson, Vancouver.
18. Exophthalmic Goitre with Delusions—Dr. Hermann Robertson, Victoria.

Papers have also been promised by the following: Dr. J. A. Halpenny, Winnipeg; Dr. Archibald, Montreal; Dr. Coffee, Portland, Ore.; Dr. F. G. Shepherd, Montreal; Dr. A. S. Shillington, Ottawa; Dr. Park Weed Willis, Seattle; Dr. Jones, Victoria.

ORTHOPEDICS.

A paper has been promised as follows:

Management of Old Un-united Fractures of Femur—Dr. Herb. P. H. Galloway, Winnipeg.

A paper has also been promised by Dr. Ed. Ant. Rich, 1103 Fidelity Building, Tacoma.

OBSTETRICS AND GYNECOLOGY.

Papers have been promised as follows:

1. Spontaneous Rupture of a 4½ Months' Gravid Bicornuate Uterus—Dr. G. A. Wright, Saskatoon.
2. Puerperal Septicemia—Dr. Adam Wright, Toronto.
3. Commonplace Observations on Rural Obstetrical Practice—Dr. Speechley, Pilot Mound, Man.

EYE, EAR, NOSE AND THROAT.

1. Possibly Abnormal Conditions in Apparently Normal Eyes —Dr. Reeve, Toronto.
2. Glaucoma—Dr. Good, Winnipeg.
3. Ear—Dr. Hackney, Calgary.

Papers have also been promised from the following: Dr. A. H. Wright, Toronto; Dr. G. Campbell, Vancouver; Dr. J. D. Courtney, Ottawa.

PATHOLOGY AND LABORATORY.

Papers have been promised as follows:

1. Cep. Mon. Cyclop—Dr. Maud Abbott and Dr. Joseph Kaufman, Montreal.
2. Vaccines—Dr. C. S. McKee, Vancouver.
3. Lantern Slides Illustration—Drs. Wilson and McCarthy, Rochester, Minn.
4. Studies in Aberrant Abortive Hemoptosis—Dr. V. C. Grimmer, Montreal.
5. Medico-legal Exhibits and Notes—Dr. Revell, Edmonton.

Papers have also been promised by Dr. Mosher, Calgary, and Dr. Jamieson, Edmonton.

PREVENTATIVE MEDICINE.

Papers have been promised as follows:

1. Tuberculosis—Dr. Ogden, Gravenhurst.
2. The Control of Communicable Diseases—Chas. J. Hastings, Toronto.
3. Medical Inspection of Public School Children—Dr. Helen MacMurchy, Toronto.
4. Flies vs. Health—Dr. J. S. Todd, Montreal.
5. Control of Smallpox—Dr. T. H. Whitelaw, Edmonton.

6 The Dresden Exhibition of Hygiene—Dr. Home, Victoria, B.C.

7. Typhoid Epidemiology or Cholera Infantum—Dr. Jennie Drennan, Rosebank, N.Y.

Papers have also been promised by Lorne Drum, Ottawa, and Dr. C. H. Vrooman, Kamloops.

Papers have also been promised as follows:

1. Economics of Hospital Planning and Management—Mr. Sturm, Chicago.
2. The Sins of the Father—Dr. J. George Adami, Montreal.

AMERICAN HOSPITAL ASSOCIATION

THE 14th Annual Meeting of the American Hospital Association will be held in the Hotel Ponchartrain, Detroit, Mich., on Tuesday, Wednesday, Thursday and Friday, Sept. 24, 25, 26, 27, 1912. The following is the preliminary programme:

President's Address—Dr. Henry M. Hurd, Secretary Board of Trustees, Johns Hopkins Hospital, Baltimore, Md.

Report of Committee on Construction—Dr. C. R. Holmes, Trustee City Hospital, Cincinnati, O.

Report of Committee on Training of Nurses.

Report of Committee on Hospital Efficiency, Hospital Finances and Economics of Administration—Dr. Thos. Howell, Supt. New York Hospital, New York City.

Report on Out-Patient Work—Dr. Wayne Smith, Supt. City Hospital, St. Louis, Mo.

Report on Hospital Accounting—J. B. Draper, Esq., Supt. University Hospital, Ann Arbor, Mich.

Report on Medical Organization and Medical Education—Dr. R. O. Beard, University of Minnesota, Minneapolis, Minn.

Report of Committee on Bureau of Hospital Information and Permanent Secretaryship—Dr. S. S. Goldwater, Supt. Mt. Sinai Hospital, New York City.

Report of Committee to Memorialize Congress to Place Hospital Instruments on the Free List—Rev. G. F. Clover, Supt. St. Luke's Hospital, New York City.

Report of Committee on Standard Nomenclature—Dr. Frederick A. Washburn, Supt. Massachusetts General Hospital, Boston.

Social Service in Massachusetts General Hospital—Miss Ida M. Cannon, Head Worker Social Service Department, Massachusetts General Hospital, Boston.

The Economic Features and Feeding of Hospital Employees and Patients—Dr. H. T. Summersgill, Supt. Post-Graduate Hospital, New York City .

Economy in the Operating Room—Mr. Asa Bacon, Supt. Presbyterian Hospital, Chicago, Ill.

A Contribution to the Problem of Convalescence—Dr. Fred. Brush, Supt. Burke Relief Foundation, New York City.

The Use of Salvarsan (606) in Hospitals—Dr. R. R. Ross, Supt. General Hospital, Buffalo, N.Y.

The Cost of Infectious Diseases—Prof. Jas. W. Glover, Michigan University, Ann Arbor, Mich.

The Relation of the General and Special Hospitals in the Care of the Insane—Dr. Chas. K. Clarke, Supt. General Hospital, Toronto, Canada.

Nursing Standards and the Supply of Pupil Nurses—Dr. Frederick A. Washburn, Administrator Massachusetts General Hospital, Boston.

The Grading of Nurses—Mrs. E. G. Fournier, Supt. Minnewaska Sanitarium, Gravenhurst, Ont., Canada.

Hospitals and Their Duty in Relation to the Prevention of Disease—Dr. Chas. P. Emerson, Medical Department University of Indiana, Indianapolis, Ind.

Subject to be announced—Rabbi Franklin, Temple Beth El, Detroit, Mich.

Subject to be announced—Mr. J. R. Coddington, Supt. Polyclinic Hospital, Philadelphia, Pa.

The Hospital Laundry—Dr. Winford H. Smith, Supt. Johns Hopkins Hospital, Baltimore, Md.

Hospital Organization with Special Reference to that of the Detroit General—Dr. W. F. Metcalf, Detroit, Mich.

The Question Drawer—Dr. Alice Seabrook, Supt. Woman's Hospital, Philadelphia, Pa.

Round Table Conference for Workers in Smaller Hospitals—

Miss Louise Brent, Supt. Hospital for Sick Children, Toronto, Canada, and Miss Amy Armour, Supt. New Rochelle Hospital, New Rochelle, N.Y.

Non-Commercial Exhibit of Hospital Appliances—Miss Charlotte S. Aikens of Detroit.

There will be a Trustees' Session presided over by J. L. Hudson, Esq., Chairman Board of Trustees, Harper Hospital, Detroit, Mich.

Other interesting papers will be presented, the titles of which will appear in the permanent programme.

J. N. E. Brown, M.B., Secretary.

Selected Articles

THE ORDINARY CARE OF THE PHYSICIAN'S HANDS

BY RALPH ST. J. PERRY, M.D., PARKERS PRAIRIE, MINNESOTA.

During the years that have elapsed since Lister promulgated his antiseptic edict of cleanliness, much has been written upon the rendering of the hands aseptic, so much, in fact, that in the thrusting of the aseptic "mit" into the lime-light many have overlooked one of the most potent factors in medical economics—the ordinary care of the doctor's hands. This subject is very properly an "alkaloidal" one, being an "active principle" which is a success-maker.

The doctor's *hands should be clean, dry, warm, smooth, and soft.* Regardless of the social classification of his clientele or of his own standing in the community—whether as a general practitioner or a specialist—whenever he gives the grasp of friendship or he makes a physical examination, his friends, patients, as well as innocent bystanders should be witness to the fact that his hands possess those five qualities enumerated, namely, cleanliness, dryness, warmth, smoothness, softness. This possession does not in any way imply weakness or effeminateness; it merely indicates compliance with a business necessity.

Cleanliness of the Hands.

The conditions of our mundane existence are such that the hand becomes the lodging-place for more or less dirt—matter out of place; and because of the many peculiar requirements of our professional work, we come in contact with many kinds of dirt not within the ordinary manual affinity of others. As this latter remark also applies to nurses, they are hereby given permission to peruse this article—and profit thereby.

In cleansing the hands, it is best to use warm soft water, if possible. If not obtainable, use hard water which has been

boiled for half an hour, or to which a little ammonia or borax has been added. The solvent effect of the water is more fully secured if the water be warm. Soap is a necessity to the laving, and after some forty years of saponaceous deterging I am still adhering to the old reliable cocoanut-oil soap of my youth and concomitant dirtiness. The cocoanut-oil makes a purely vegetable soap, and when properly made it is hard, white, almost odorless, and will form a good cleansing lather either in hard or soft, warm or cold, water. It is not expensive and can be bought anywhere. (I may add that the "Reine" brand, made by the Delorme & Quentin concern of Milwaukee, has been my favorite for years.)

Various antiseptic soaps are on the market, but such are not needed for ordinary cleansing. Soft and liquid soaps, while very nice for your office washstand, cannot well be carried about on one's trips. Always carry your own cake of soap; it is safer and cleaner than the promiscuously used piece commonly found away from home. In the farm home you too often are offered a chunk of laundry soap, which, because of the rosin it contains, is not good for toilet purposes, this article leaving the hands gummy and sticky. Soap leaves—sheets of tissue-paper coated with soap—are handy, when obtainable.

There are two best times when to wash the hands, namely, just before examining a patient, and just after. The frequent repetition of this practice is perfectly harmless, while the psychic effect upon the patient and others is beneficial.

HOW TO WASH AND DRY THE HANDS.

In washing the hands, do not merely dip them in water and wipe the dirt off on the towel; that is a poor way. Take off your coat, remove your cuffs, pull your shirt sleeves up to the elbows, undershirt ditto, then wash well up along the forearm. That little dark line of demarkation we so often see at the wrists is more an evidence of slovenliness than of uncleanliness. Wash the dirt all off into the water, leaving as little as possible to be wiped off on the towel.

The towel was intended for drying purposes, hence should be of an absorbent material, and woven thick enough to be serviceable. Turkish and huck towels are better than crash or thin

cotton stuff. The paper towel, which has been recently introduced, is better and cheaper than a cloth towel, which has to be laundered. As stated, the function of the towel is desiccative or dehydrative, and in carrying out this part, there should be a thorough and careful wiping at all joints and in the interdigital clefts. Imperfect drying leads to red and chapped hands, roughness of the skin, and eczema.

THE FINGER-NAILS NEED CLOSE ATTENTION.

The physician who drives, rides a bicycle, runs an automobile or uses the cars, should keep his hands as clean as possible by wearing suitable gloves all the year around.

Another, and most important, matter not to be overlooked in cleansing the hands is that the finger-nails require careful cleaning also. Use a nail-cleaner, your pen-knife blade, a toothpick, the chewed end of a match, or any suitable extemporaneous tool, but, by all means, let people see the natural color of your projecting nail-tips. Not even if you have suffered bereavement should your melanotic emblem of mourning be shifted from your sleeve to your finger-nails.

I have in my mind a surgeon who, some years ago, was on the highway to fame and fortune. He had acquired positions of honor and a good income. But in spite of his brilliant discourses and equally brilliant results (in some classes of work), he lost many patients by death. At first, as a non-resident admirer, I sympathized with him in what seemed to be his "hard luck." Then, one day, while I was discussing surgical affairs with a noncombative resident, the latter chanced to refer to our "unlucky" friend as "Old Dirty Finger-nails." This I found was the sobriquet bestowed upon that surgeon in the inner circle of those thereabout who chirurge—and in an instant there came an enlightening flood of understanding. And—*res ex* ("everything was off") with one more consulting surgeon.

OFFENSIVE ODORS—HOW TO HANDLE THEM.

One of the idiosyncrasies of personal contact which the doctor meets is the odoriferous patient. The aroma may be that of pus, of feces, vaginal secretion, penile smegma, amniotic fluid or any other of the odorific secretions, and this effluvium may

possess a tenacity and lastingness that maliciously defies your most frantic washings and scrubbings, irrespective of strenuous repetitions. There may be a hyperesthesia of your Schneiderian membrane or a hypertrophy of your imagination as factors in the case, but to you the proboscial offence is a reality, and it may be no less so to others.

As a deodorizing treatment, I have found the following very effective: Wash the hands thoroughly in warm water, using cocoanut-oil soap freely to produce a good lather; then wash in a solution of cyanide of mercury, 1 : 1000. Dry the hands *thoroughly,* after which rub a few drops of pure balsam of Peru into the skin. This imparts a vanilla-like odor to the hands and effectually masks the offensive odor. If necessary to leave the office at once, a non-greasy toilet cream (made of casein) perfumed with oil of rose may be applied; but if possible, use the balsam of Peru, as it is not only disodoring but healing and antiseptic as well.

The same method may be employed in overcoming the odor of iodoform, carbolic and lysol solutions, valerian or any other unpleasant-smelling drugs with which the hands may have come in contact; so, also, against the hippuric, hippofecal and generally manurial and similar odors which attach to the doctor who personally attends to his barn duties. As a counter or foil for the odor of automobile oil and machine grease it is A No. 1—but I doubt if anyone who pays a high price to acquire such a luxury would be very anxious to get rid of that. However, the suggestion is offered.

DETERGENT METHODS FOR SUNDRY SOILS AND STAINS.

Grease and grime, paint, tar, printers' ink, asphalt, and matters of this nature call for more than soap and water. A little kerosene, benzine, gasoline or oil of turpentine rubbed on the hands as a preliminary to the washing will soften—"cut," as is the saying—the adherent dirt, so that most of it can be wiped off with a rag or bit of soft paper. Then wash freely with the cocoanut-oil soap or a real good tar soap (I prefer "Grandpa's"), adding a few drops of oil of turpentine or kerosene *after* the lather has formed. (Remember the injunction "after"!) Such a procedure will leave the hands clean, white, and soft. Clean diligently around and under the finger-nails

with a stiff-bristle brush. Any remaining odor can be covered up with a few drops of balsam of Peru.

A most excellent type of soap for assisting in the removal of grime, paint, and dirt-matter of a smudgy, adhesive nature are those containing an admixture of fine sand, rotten-stone, pumice or marble dust. Originally introduced, years ago, as "hand sapolio," these detergent soaps are now a general commodity as "mechanics' soap," "pumo," and under various other seductive trade-names. Most of them are made with cocoanut-oil as a basis—hence are satisfactory.

STAINS PRODUCED BY CHEMICAL AGENTS.

Chemical stains upon a doctor's hands, even if ocular evidence of profound laboratory research are not always interpreted as such. When the hands have been stained by a strong alkaline solution, wash them with a diluted acid (nitric or acetic—1 part in 100 parts of water); then, immediately, thoroughly rub soap into the skin of the wet hand, using no water. The acid, decomposing the soap (sodium oleostearate) brings about a deposit of fatty acids in the skin, which counteract the effects of the alkali and tend to prevent the skin cracking which otherwise would follow.

Nitric acid, which many of us use so freely and carelessly in urine testing, stains the skin yellow, but this discoloration can be removed by wetting with water, rubbing with soap, then washing in water and scrubbing with mechanics' soap. If soreness follows this treatment, apply lanolin containing a little aristol or thymol iodide, or, if handy, an oil-solution of the latter. The stains resulting from the other mineral acids generally can be removed in a like manner.

Iodine stains can be bleached out by applying a 10-per cent. solution of sodium hyposulphite; those of corrosive-sublimate solutions, by repeated washings or rubbings with a fairly strong solution of table salt, followed by inunctions with lanolin. Permanganate stains vanish upon application of a not too strong solution of oxalic acid which has been slightly acidulated with sulphuric acid.

Battery fluid, i.e., the bichromate of potassium solution, stains the skin yellow; this, however, is removed by washing in

a strong solution of sodium hyposulphite to which a little sulphuric acid has been added. Stains from some aniline dyes are removable by washing first in alcohol containing a little acetic acid, and then rubbing with Javelle water (chlorinated-potassa solution, N.F.) or Labarraque's solution (chlorinated-soda solution, U.S.P.). The latter—now quite commonly also designated as Javelle water—is a preparation used by professional cleaners and scourers. Many formulas for it are in vogue (see U. S. Dispensatory), of which the following is one, though unusual: Sodium bicarbonate, 4 parts; water, 8 parts; chlorinated lime, 1 part. Dissolve the soda in the water, gently boil a few minutes, add the lime, allow to cool, then strain or filter. The boiling serves merely in facilitating precipitation of the calcium-carbonate magna, but it also dissipates the active gases.

Stains produced by berries, grass, walnut husks, and in fact all stains due to vegetable juices can be removed by repeated applications of this chlorinated water; likewise ink stains.

DRYNESS AND WARMTH.

Supplemental to my previous remarks on keeping the hands dry, let me state that the hands, so far as possible, should be kept dry in summer, at which season the sweat-glands are prone to "work overtime." Some individuals are afflicted with excessive perspiration at all times, and these should be particularly careful to keep their hands dry. The moist hand is almost always a cold one, and a "cold, clammy" hand has a most depressing effect in business relations, especially with superstitious people and those of the original stock from the "ould sod" of the Emerald Isle. You may tell them as often and emphatically as you wish that "a cold hand means a warm heart," the chances are that they're "against ye."

A warm hand means a good capillary circulation and is usually an indication of good health. It is certainly an asset in the field of medicine, surgery, and obstetrics when it becomes necessary to make manual or digital examinations.

BEWARE THE COLD, CLAMMY HAND—GLOVES.

There is nothing so disconcerting to an unsuspecting feminine abdomen as to have an icy hand laid upon it. Not only is

the effect a bad one upon the owner of said abdomen, but the muscles display a revolutionary spirit by contracting and hardening, while even the internal organs receive an impression which seems to make them shrink from the unwelcome exterior invasion. As a consequence, it is often practically impossible for the doctor approaching with a cold hand to make a proper or satisfactory examination.

When you know your hand is cold (as you can readily test by applying it to your own cheek or throat), it can readily be warmed in a few minutes by holding it in a pan of warm water. Prophylaxis, however, is far better than corrective measures. Keep your capillary circulation in good order, and be sure to wear warm gloves, according to the season and climate. In summer a thin cloth glove will answer; in the spring and fall a golf-glove, with a thin white cotton military-dress-parade or a pall-bearer's glove inside of it, keeps the hand warm, dry, and free from the scratching of the unlined golf-glove; the white cotton glove being washed as often as required. Such a double glove has proved in actual service to be warmer than one of thick, heavy cloth.

In winter time, especially in the northern half of the United States and in Canada, where the mercury retreats down into the sub-cellar occasionally, it becomes necessary to resort to fur gloves or fleece or fur-lined ones. During a score of years spent in driving over northwestern prairies, frost-nipped and blizzard-swept, I have worn all manner of fur and leather gloves and mittens, from sealskin to catskin, and there is no doubt in my mind that the warmest ones are those made from muskrat skin lined with fleece or with rabbit fur.

A winter glove should fit loosely, as a tight glove compresses the digital arteries, shuts off the blood supply and really defeats its own purpose and makes the hand cold by depriving the fingers of their supply of blood-heat. A snug mitten is all right if one can drive with mittens, or if you have a driver; a too-large mitten fails to conserve the heat and is cumbersome and awkward to manage.

SMOOTHNESS.

A smooth condition of the hands not only makes them more presentable, but it also helps in the development of the tactile sense and affords fewer places for the lodgment and development

of germs. Callosities from unusual work or of an occupational nature should be removed. Apply to the spots some salicylated flexible collodion; after a few hours an epidermal layer can be scraped away. Repeat as often as necessary to get rid of the superfluous epidermis. This same treatment may be used for all varieties of warts.

Cracks due to chapped skin, eczema and all other forms of skin disease incapacitate the physician for any form of surgical, obstetrical or gynecological work, and should be cured as expeditiously as possible.

The finger-nails should be trimmed to shape, with well-smoothed and even edges. They may be polished or not, as the taste of the individual may incline. The nails are naturally of a smooth, satiny finish, and pink color, and defects in finish and color can easily be overcome by the physician himself, or else by the young lady manicurist around the corner (*q.v.*). Hang-nails are an abomination in the eyes of the aseptic, hence should always be removed. Ganglions, wens, and any tumors that may develop are to be gotten rid of, for they are unsightly, and, if neglected, serve as a suggestion to others that they can do likewise as to their own troubles—to your financial detriment.

SOFTNESS.

A soft feel of the hands goes with that greatest of all qualities of the doctor—the gentle touch. The doctor who is rough in his work very often errs in diagnosis, for the reason that his roughness causes him to miss many points in an examination which are only perceptible to the easy, gentle pressure of the soft finger-tips. Handle a chestnut-bur gently, and you feel all of its thousand spicules; grasp it roughly, and you feel them not. I have noticed, too—if I may here interject an economic note—that the surgeon or gynecologist who possesses this gentle touch is usually very successful in the financial touch. *Verb. sap. sat.*

HANDS MUST BE PROTECTED.

By the time the M.D.-to-be finishes his senior course, his hands are usually well softened; but every man is called upon to do more or less rough manual work about the house, and it behooves him to see to it that his hands do not get rough. For

this purpose he can use local applications of petrolatum, cold cream, glycerite of tragacanth, cocoanut-oil, or any one of the score of efficient toilet creams and ointments known to the trade. They may be used plain, medicated or perfumed, as desired. It will be found in this matter, as in others, that there are idiosyncrasies, and what will quickly benefit one skin will irritate another, or have no effect upon it. Each individual must learn his own peculiarities by experience.

One of the little nick-nacks I have used for years with patients of this class is a putty-ball (fresh and of good quality), about the size of an orange, which the rough-handed person is instructed to manipulate and "work" for half an hour at a time. The exercise of the manipulation develops the muscles and fills out the thin, scrawny hands while the oil in the putty softens and cleanses the skin.—*Am. Jour. of Clin. Med.*

THE NATIONAL INSURANCE ACT

The Council of the British Medical Association.

A special meeting of the Council of the British Medical Association was held at 429, Strand, London, on Wednesday afternoon, Jan. 17th. A largely signed requisition was before them from the members of the Association that an extraordinary general meeting of the whole constituency should be held to consider the position of the profession under the National Insurance Act. It is well known that the authorities of the Association consider that such an extraordinary general meeting of the whole body would be out of order on the particular proposition, but no definite statement as to the decision of the Council has been made public.

BRITISH MEDICAL ASSOCIATION REFORM COMMITTEE.

The Reform Committee, which came into being on Jan. 9th at the meeting of medical men in the Hammersmith Town Hall, has issued the following manifesto:

To the Members of the Medical Profession in General and of the British Medical Association in Particular,—

The Provisional Executive of the British Medical Association Reform Committee, appointed by resolution at a public meeting of the profession held at the Hammersmith Town Hall on Tuesday, Jan. 9th, 1912, wishes to publish the following as an outline of its objects and policy.

1. This Committee exists solely for the purpose of enforcing the avowed policy of the British Medical Association in contradistinction to the weakened version thereof expressed in the circular letter to representatives under date Dec. 9th, 1911, which was signed by the chairman of representative meeting and chairman of Council, and will only continue to exist until the interests of the medical profession under the National Insurance Act, 1911, are adequately safeguarded without evasion, equivocation, or mental reservation of any kind.

2. The Committee is of opinion that the best method of obtaining this end is by the promotion of an Act of Parliament, through the British Medical Association, amending the National Insurance Act, 1911, in such a manner as will embody as a minimum the six-point programme of the British Medical Association. This opinion of the Committee is directly opposed to that of the existing Council of the British Medical Association—namely, that matters may now be left in the hands of the Commissioners to be dealt with in their regulations.

3. The Committee is of opinion that in its recent negotiations with the Government the existing Council of the Association has allowed itself to be too much influenced by political considerations, and by so doing have endangered the interests of the medical profession, and the Committee is further of opinion that the "ending or mending" of the present Council is the only method by which the confidence of the members of the British Medical Association in their official leaders can be restored.

4. In order to reform the existing Council the Committee suggests the enrollment in the Reform Committee of sufficient members in each division and branch as to ensure that a representative be returned either to the representative body or to the Council, who shall be in sympathy with, and will pledge himself to vote for, the policy laid down in the foregoing paragraphs. It also suggests the establishment of an Executive Committee in

London, composed of delegates of divisions to control the business and finances of the Reform Committee.

5. The Provisional Executive suggests that the Reform Committee should confer as soon as possible with all or any of the present medical organizations which have been formed for the purpose of dealing with the situation created by the Act, with a view to union.

6. The Committee is of opinion that every member of the profession should be a member of the British Medical Association, and urges every member of the Reform Committee to use their best endeavors to obtain new members and to persuade existing members to continue their membership.

The Reform Committee invites members of the British Medical Association who are in sympathy with the policy as set forth above to assist in the establishment of branches of the committee in their divisions, and to lose no time in communicating with the Honorary Secretary, Provisional Executive Committee, at its offices, 29 Old Queen Street, Westminster, S.W. (Telephone, 1775 Victoria). The chairman is Dr. F. J. Smith, Mr. P. C. Raiment is honorary secretary, and Mr. Wilfrid Travers business manager.—*B. M. J.*

A GREAT ENGLISH SURGEON

"A man who will always be young"—Sir Frederick Treves, the eminent surgeon has been called. And this not without reason, for, despite his fifty-nine years, Sir Frederick still possesses all the verve and vigor of youth. Among his many distinctions, surely the most important was that conferred upon him by the late King Edward, granting him by Royal Warrant the addition to his shield of one of the lions from the Royal Arms. Such a distinction has been conferred on no other physician or surgeon since the time of Charles II., when that Monarch added certain items from the Royal Arms to the shield of the Penderells of Boscombe, a member of this family having helped to save His Majesty's life after the battle of Worcester. Another tangible possession of Sir Frederick's is a

dainty silver model of a horse inscribed "Colenso." This unique gift was presented to him by the late Lord Gerard, and represents a favorite horse of his which carried him through the Boer War. One day it was wounded so badly in the neck that his lordship was about to have it shot. Sir Frederick, however, asked that the poor suffering animal should be sent round to him, as he thought he might be able to do something for it. So it was brought round, and, in Sir Frederick's own words, "I performed an operation, tied a piece of old stair-carpet (which the Boers had left behind them) round its neck to keep off the flies, and in due course pulled it through." Of all the many stories which are told about Sir Frederick, perhaps the best concerns Lord Charles Beresford. Lord Charles felt unwell, remained in bed, and sent for Sir Frederick Treves. When the doctor came he asked the usual questions, and Lord Charles poured forth a lamentable tale of aches and pains. "Capital!" remarked the doctor when one of them was explained. "Excellent!" he cried upon the indication of another; and "Wonderful!" when the third was described. Lord Charles was quite unable to understand all this enthusiasm at the expense of his indisposition, and was amazed when, having completed his tale of woe, Sir Frederick slapped his open hand upon his patient's shoulders, and ejaculated, "You lucky dog!" Then he added: "Let me congratulate you, my dear chap. You are the fortunate possessor of one of the rarest diseases we know of; one which we thought to have been extinct." The comfort Lord Charles got from this behavior was that there was nothing much the matter with him.—*Modern Society.*

School Hygiene

MEDICAL INSPECTION OF SCHOOLS—SIR GEORGE NEWMAN'S REPORT

On January 1st, 1908, the law passed in England in 1907, establishing medical inspection of schools as an integral part of the educational system, came into force, and Sir George Newman was appointed Chief Medical Officer to the Board of Education—the name used in England as Minister of Education is used in Canada. The President of the Board of Education is a member of the Cabinet, as the Minister of Education is in Ontario.

Sir George Newman has now issued three reports, the last of which is probably more valuable than either of the preceding ones. Whether that is so or not, certainly the present third report has attracted more attention. It is noteworthy how soon and how thoroughly medical inspection of schools in England was attended to, once the law making it obligatory was placed on the Statute-book. As yet, and our readers know it well, the efforts in this direction in Canada have lacked that encouragement and steadiness that official recognition from the Government can do so much to supply.

To return to Sir George Newman's report, we hasten to say that anyone who is interested in medical inspection of schools, and is progressive enough and patriotic enough to be willing to help to establish it in Canada could not spend 1s. 3d. better than by procuring this report from His Majesty's Stationery Office in London. It would certainly be a stimula to the mind of anyone to read this account and think over it.

There are six million school children in England and Wales. About 63 per cent. of them ought to have something done for them. Here are two summaries of the state of affairs:

Disease.	Number of Children.	Per cent.
Defective vision (serious)	600,000	10
Defective hearing	180,000	3
Suppurating ears	60,000	1
Adenoids	360,000	6
Decayed teeth (extensive)	2,400,000	40
Ringworm	60,000	1
Tuberculosis (readily recognizable)	60,000	1
Heart disease	60,000	1
Total cases of disease	3,780,000	63

MALNUTRITION.

As to malnutrition, here are some figures from different parts of the country. They are divided into four classes: (1) Good, (2) Normal, (3) Sub-normal, (4) Bad.

Taking counties, here are the figures showing the percentage of children showing a "sub-normal state of nutrition: Bedfordshire, 20.1; Dorset, 14.4; Somerset, 15.0; Staffordshire, 19.2; Surrey, 12.5; taking urban areas, Darlington, 21.0; Ipswich, 26.3; Kingston, 12.6; Tynemouth, 27.0.

As the *Times* says about the latter summary, "They are half-starved," and as the *Times* also says about the first summary: "As soon as we abandon the idea that ill-health is the concern only of the sufferer and regard it in its true light as an evil certain to extend in ever-widening circles, the present condition of 3,000,000 of our school children will be recognized as a matter of the gravest importance."

The *Times* is usually not far wrong, and it cannot be denied or disputed that just as the national character depends on the children and youth whom we are preparing to receive all our wealth and our duties, so the national health depends on the health of these same children.

It is not lost time, as every sensible person knows, to think first *how* you are going to do a thing before you do it. Then, second, a great deal is learned by doing it, and so on. The problems of organization, of administration, of division of labor, must come first. Nothing goes well, if these are left to take care of

themselves. And the prevailing effort towards the unification of the whole health service under one head, viz., the Medical Health Officer of the city, town, or district, is being generally applied to the working of medical inspection of schools. Even the vast area and population of London now has a health service of this character. Sir Shirley Murphy having retired, his successor has been appointed, not only Medical Health Officer for London, but also Chief Medical Officer of the Education Committee of the London County Council. There were many reasons for this, some of which do not directly concern us, but one observes with interest that the work of Dr. James Kerr, previously and for many years Chief Medical Officer to the Education Committee (L. C. C.) is referred to again and again—it would almost seem, under every topic in the report. It is well known, of course, that the London County Council has within it some wonderful groups of Socialists, Conservatives, Moderates and others. The plans of the Moderates for medical inspection and treatment of school children broke down, perhaps partly on account of the advent of Greater London. But nothing can supersede the work of Dr. James Kerr, or dim the lustre of his fame with those who know even a little of that work and fame. We do not grudge Sir George Newman his title bestowed this year. Far from it. It is an honor to the medical profession, and as a reward it is, for more than one reason, well bestowed. He was in the path of least resistance down which such honors travel. But had the decoration come the way of Dr. James Kerr, the man and his work would add somewhat to the honor of the title and government who recommended its bestowal. Some other day, perhaps.

Six branches of school medical work are dealt with in this able report, and there is considerable progress to be chronicled in them all: (1) Medical inspection, (2) medical treatment, (3) school sanitation, (4) special schools for the defective, (5) physical training, (6) the feeding of school children. As is well known, the policy of the Board is to encourage the appointment of the same officer as medical officer of health and school medical officer, and it appears that this policy has been generally adopted, for of the 306 local education areas in which the school medical officer has been recognized by the Board, only 68 have appointed a school medical officer who is not a medical officer of health. In

154 areas the school medical officer is able personally to carry out the medical inspection, while in the remaining 151 areas where schemes of inspection have been approved by the Board, assistant medical officers have been appointed to the number of 476, of whom 174 are whole-time and 302 part-time officers. In the remaining 17 areas there are 214 medical officers, so that the whole school medical service in England and Wales comprises 995 medical officers, and of these 79 are women.

The machinery of medical inspection is becoming more workable and understood, and therefore more effective. The public are being informed of what is being done, and Sir George Newman's report, in its persuasive simplicity, will enlist anew public sympathy and public co-operation.—HELEN MACMURCHY.

News of the Month

INTERNATIONAL RED CROSS CONFERENCE AT WASHINGTON

In connection with this very important conference, the ninth held since the ratification of the famous Geneva Convention, which has done so much to humanize the conditions of war, an interesting competition was held.

It was called the Marie Feodorovna Prize Competition, and was under Russian auspices, having been established by the Czarina in 1902. The subjects for competition varied from methods of organization to Roëntgen apparatus, and included a special class for methods of packing dressings at aid stations and in ambulances. In this class the only award was secured by Messrs. Burroughs, Wellcome & Co. for "Tabloid" compressed bandages and dressings. The jury consisted entirely of Russian and other Continental judges.

THE NATIONAL SOCIETY OF ANESTHETISTS

On June 6th, at Atlantic City, during the meeting of the American Medical Association, and following a symposium on anesthesia, the National Society of Anesthetists was organized. Prof. Yandel Henderson, of Yale, chairman of the Commission on Anesthesia of the A. M. A., occupying the chair, those assembled for the symposium acting as a committee of the whole, proceeded to organization, and elected the following officers for the year 1912-13:

President—James Taylor Gwathmey, of New York.

Vice-Presidents—Charles K. Teter, of Cleveland; F. H. McMeechen, of Cincinnati; Yandel Henderson, of New Haven.

Secretary—William C. Woolsey, 88 Lafayette Avenue, Brooklyn.

Treasurer—Harold A. Sanders, of Brooklyn.

The constitution and by-laws were ordered to be drawn by the executive committee and submitted to the society at its next meeting for adoption. All names submitted for membership, if qualified in the estimation of the executive committee, shall be considered as charter members if presented within a period of sixty days and accompanied by the levied due of three dollars.

The National Society of Anesthetists in this notice calls all those who are actively interested in this work to join its ranks and assist in developing the subject of anesthesia to greater perfection and more uniform safety.

WILLIAM C. WOOLSEY, Secretary.

OPENED NEW WING OF ISOLATION HOSPITAL

THE new wing of the Isolation Hospital, giving accommodation for 125 patients and costing the city about $100,000, was formally opened on July 13th, a number of the patients of the overcrowded wards of the older portions of the institution being transferred to the new section.

For the present the new ward is to be used by scarlet fever patients as well as for diphtheria and observation. This will continue until the proposed reorganization of the whole hospital takes place. Communication between the new wing and the old building is by a tunnel. A feature of the new structure is the provision made for observation cases. Each diphtheria patient will be placed in a separate glass-partitioned room for the first five days, where careful watch can be kept without danger of cross-infection.

XVII. INTERNATIONAL CONGRESS OF MEDICINE

THE second official circular of the Seventeenth International Medical Congress, to be held in London, England, August 6th to 12th, 1913, has recently been issued.

The address in medicine is by Professor Chauffard, the ad-

dress in surgery by Professor Harvey Cushing, while Professor Paul Ehrlich is to deliver the address in pathology.

The circular contains the provisional programme of subjects for discussion in the 23 sections constituting the Congress.

It is hoped that the profession in Canada will take full advantage of an event of such great importance in the medical world in particular, as the profession in Canada has been accorded such recognition by the British authorities in charge of the Congress.

Dr. W. H. B. Aikins, who is secretary of the Canadian committee, will be pleased to send these circulars or furnish other information to anyone interested. The secretary's address is 134 Bloor Street West, Toronto.

MEDICAL INSPECTION OF SCHOOLS

Two important deputations from the British Medical Association, headed by Sir Victor Horsley, Dr. Ford Anderson, and others, were received by the President of the Board of Education, accompanied by Sir George Newman and others, on May 16th.

The first was to remind the Government that, although (in accordance with the views of the deputation from the B. M. A. a year ago) the method of medical inspection of schools in London had been altered, still the provision for treatment was far from satisfactory, and that more school clinics or "Treatment Centres" were urgently required.

The response on the part of the Government was encouraging. Allusion was made to the fact that the Government had provided £60,000 as a grant which would be allocated to the different educational authorities for this purpose.

The second deputation urged upon the Government the necessity of training teachers in some elementary psychology and both teachers and pupils in hygiene. The response of the Government was not so encouraging, and no doubt another deputation will have to go next year with the same request. H. M'M.

THE CANADIAN MEDICAL EXCHANGE

PHYSICIANS desiring to secure a location for practice in Ontario, Manitoba, Saskatchewan, Alberta, or British Columbia can secure a list of from 25 to 35 openings in these provinces, some with and some without property, by applying to Dr. Hamill, who conducts the Canadian Medical Exchange, 75 Yonge Street, Toronto, for the purchase and sale of medical practices and property. Bona fide prospective buyers can get particulars free of any offer simply by applying therefor and agreeing in writing that all information received is confidential, and that they will not offer opposition for a reasonable time to any physician whose offer is submitted to them. A partial list of such practices for sale will be found among our advertising columns each month, the complexion of which naturally changes with each issue.

A Typographical Error.—In our "Lister number," the demand for which we may be pardoned for saying that we could hardly supply, we stated that the late Lord Lister left certain sums to the Royal Society of London and other scientific and medical institutions, with the proviso that his name *should* be associated with the bequests. As a matter of fact (and our readers must have recognized our error), the proviso is that his name *should not* be associated in any way with them, and we gladly correct the mistake.

PERSONALS

Dr. B. E. McKenzie is in England.

Dr. Jukes Johnson will spend this month at his summer home at Goderich.

Dr. Herbert Bruce has gone to England and will be back about August 15th.

Dr. and Mrs. W. B. Thistle had a most enjoyable motor trip "Stratford way" last month.

Dr. D. J. Gibb Wishart and family, of Grosvenor Street, have gone to Go Home Bay for August.

Dr. J. J. Cassidy and family are at their summer home, "Sanitas," Long Branch, for the summer.

Dr. R. J. Wilson, of Bloor Street West, has, we are glad to know, entirely recovered from his recent illness and is again at work.

Dr. C. F. Moore has moved from Spadina Road and taken the house of his brother-in-law, Dr. Wm. Britton, No. 17 Isabella Street.

Dr. S. M. Hay begs to announce to the medical profession that in future he will limit his practice to surgery and consultations.

Dr. and Mrs. F. N. G. Starr are summering at their new "Bungalow" on the Georgian Bay, and return to Toronto September 1st.

Dr. Sloan, who for fifteen years has been surgeon to the Central Prison, Toronto, has resigned. Dr. Jas. Algie has succeeded him.

Dr. Charles Ferdinand Durand, late proctologist to the German Hospital, Buffalo, N.Y., begs to announce to the profession that he has opened an office at No. 590 Huron Street, Toronto. Telephone Hillcrest 2173. Practice limited to diseases of the rectum.

At the eighty-first annual commencement of Wesleyan University, at Middletown, Conn., held on June 19th, the degree of doctor of laws was conferred upon Dr. Amos J. Givens, proprietor of Givens' Sanitarium for Nervous Diseases, at Stamford, Conn.

Dr. W. J. Wilson and Mrs. Wilson, of College Street, were at Atlantic City during June. Dr. Norman Wilson is at present doing special work at Golden Square Throat Hospital, London, and expects to return to Toronto to practise that specialty next spring.

The trustees of the American Medicine gold medal award respectfully announce that the medal for 1912 has been conferred upon Dr. William C. Gorgas, Ancon, Panama, as the American physician who in their judgment has performed the most conspicuous and noteworthy service in the domain of medicine during the past year.

Dr. J. N. E. Brown, late Superintendent of Toronto General Hospital, has had the honor of being recently appointed Medical Superintendent of the Detroit General Hospital. We heartily congratulate our confrere on this distinction. It is an honor not only to himself, but to Canada, that a Canadian should be chosen for so responsible a position. It is but deserved, as Dr. Brown has for years made a special study of hospital management and technique, having now a reputation for his ability along that line second to none.

Dr. Wm. Britton of Isabella Street a few weeks ago removed from Toronto owing to a threatened break-down in health. Dr. Britton has, as the profession well know, been a very hard-working practitioner for well over a quarter of a century, and for some months past has been feeling the strain of a large general practice. Feeling that he needed a prolonged holiday (and no one questions the fact that he deserved one), the Doctor relinquished his practice and removed to Brantford for the summer months, and intends going West in the autumn. We refuse to say "good-bye," as we all look forward to our good friend returning to Toronto at no distant date in the full enjoyment of his old-time vigor.

Correspondence

The Editor cannot hold himself responsible for any views expressed in this Department.

ANOTHER EARLY BACTERIOLOGIST; WHO WAS HE?

Toronto, May 14, 1912.

To the Editor: In a little duodecimo volume, printed in Paris, 1797, and entitled "La Cacomontade ou Histoire Politique et Philosophique de Mal de Naples," par Simon Nicolas Henri Linguet, are to be found several hits at medical men. Among them is the one cited below. Can you, or any of your readers, inform me who was that charlatan who, so much in advance of his times, taught the microbic theory of disease (including *le mal de Naples*)?

WILLIAM RENWICK RIDDELL.

After giving (page 12) "the complete theory of the disease developed by one of its best historians . . . clear, concise, intelligible," the author proceeds: "Charlatans have sometimes taken the trouble, however, to give another theory. For example, a celebrated one appeared in Paris in 1727. He asserted that all human infirmities, including that we are now occupied with, are produced by little animals which introduce themselves into the blood. According to his system, what is called a remedy is a mixture of other little animals, irreconcilable enemies of the former. These make a vigorous attack upon their adversaries.

Accordingly, the body of a sick man is a field of battle; there prodigies of valor are performed. Fever leads there her light squadrons; cacomontade her coagulating infantry. Soon is seen arriving the faculty, heavily armed, with battalions of quinquina or mercury. The faculty deploy in succession the different corps of that redoubtable militia. The fight is long sustained with vigor, until the animalcules of quinquina conquer those of fever, or the corrosive mites are driven from the field by the metallic insects—unless, indeed, the field of battle itself overwhelmed by such terrible efforts, sinks exhausted to the ground,

swallowing up with it conquerors and conquered—and that is what generally happens.

If that idea is not true it is, at all events, comforting.

But the gravity of the doctors has proscribed it. Annoyed at seeing themselves reduced by this theory to be nothing more than colonels of a regiment of rhubarb or senna, they have laid violent hands upon all these little armies which are given to them to lead. They have preferred to remain generals of certain blind corpuscles, rather than be commanders of legions, numerous and alive. They have preferred to leave to chance the restoration of harmony in the humors by the use of material instruments rather than to bring these into good order by the use of troops, active and well disciplined. Is that not to prefer inaction to movement, death to life—just as the current reproach goes?''—*N. Y. Med. Journal.*

The Physician's Library

BOOK REVIEWS

The Frontiersman—A Tale of the Yukon. By H. A. Cody. Toronto: William Briggs.

Read it. A good story, and well written. A description of the efforts of a young missionary to establish Christianity among the Yukon Indians. The author is thoroughly posted in the geographical conditions of the country, and in the character and dispositions of its inhabitants. The incidents regarding the use to which mission offerings are put suggest to one the possibility of the recent charges made against some missionaries being in a measure true. S. J. H.

Modern Materia Medica, Pharmacology, Therapeutics. With illustrations. By J. P. Buckley, Ph.G., D.D.S, Chicago. Third edition. Published by P. Blakiston's Son and Co., Philadelphia.

The practice of dentistry comprises many branches, any one of which constitutes a specialty in itself. The man who steps into dentistry from some special work which is brought into play in dental practice brings a power of thought and analysis that enables him to see much farther and more clearly than is possible for the ordinary dentist, even though the latter have acquired much knowledge in that particular direction. Dr. Buckley is of this type. He came by way of pharmacy.

That this is the third edition of the work in barely twenty months strongly recommends the book. The improvement in this edition lies particularly in the treatment of alveolar abscesses.

The drugs are all there, so also is the way to think and act while using them. It is profitable but dry reading. In fact, twice I caught myself wondering when they were going to announce the next hymn. However, to a man who has placed ten

days between himself and his final or any examination it is indispensable.

Stepping out of Part 1 to Part 2, on practical dental therapeutics, is like taking a cool bath in July—fine, clear, fresh—the very latest. If an uncertain principle is to be discussed it is done with plain good sense, and if an old and well-established one the reader will discover a lot of information he has forgotten. To be brief, it's all there from putrescent pulps and pyorrhea to canker sores and syphilis. A man reading a little each day would soon pass for a scientific man. J. A. C. H.

The Medical Examination of the School Child. By D. A. Carruthers, M.D., D.P.H. London: *The Medical Officer,* 36-38 Whitefriars Street.

Dr. Carruthers has made a useful book out of an eminently practical and complete series of articles which appeared under the above title in the *Medical Officer.*

The school medical officer needs special knowledge and, still more, special experience, and there are really few books to aid such an officer in getting a knowledge of the conditions that he has daily to face. The author takes the instructions of the education department as a guide, and discusses each point in detail. Directions are given which will aid in almost every difficulty. The book will be welcomed by hundreds of school medical officers. H. M'M.

Diseases of the Skin, and the Eruptive Fevers. By Jay Frank Schamberg, A.B., M.D. Fully illustrated. Cloth, $3.00 net. Philadelphia and London: W. B. Saunders Co., 1910.

This work fills a much needed want, as it is not too large for students; at the same time it takes up the various diseases in a style that is interesting and most instructive. The treatment of each disease is unique in that not many formulæ are given, but what is much more valuable, is that in each case, a given treatment is mentioned that has proved most successful in the author's extensive experience.

Probably no book published in recent years has described the exanthemata so clearly and the differential diagnosis cannot but prove a great assistance to every physician. The book

throughout is well illustrated, most of the illustrations are of the ordinary type of each disease, and not the exceptional or rare type so often illustrated in books on diseases of the skin.

D. K. S.

Members of the Family. By Owen Wister, with illustration by H. T. Dunn. New York: The Macmillan Company, 1911. All rights reserved.

These yarns of Wister's are very fetching; but their flavor depends on yourself—on the humor you are in. On the first reading they seemed of no account. Afterwards we read the author's preface—a sensible bit of prose—and then we tackled the yarns again. They tasted better the second time, and we were delighted with the author's wit and humor. J. J. C.

Blood Pressure Technique Simplified. By W. H. Cowing, M.D. Published by Taylor Instrument Companies, Rochester, N.Y. Canadian prices, $1.25; postpaid, $1.33.

The above work, just from the press, treats in a frank manner of the technique of blood pressure. It is a correlation of the opinions of many of the most eminent authorities on this subject, and is particularly valuable for the general index which it offers on blood pressure in its relation to chronic and acute diseases.

To quote from its introduction, by the author, "No attempt has been made to produce a work for the specialist, but to give, in a modest way, to the general practitioner who may not be thoroughly informed in blood pressure work, some observations of the writer and men who are eminent in this field of work, hoping it may be of use to him in his daily routine work."

Nancy McVeigh of the Monk Road. By R. Henry Mainer, Toronto: William Briggs, 1908.

In writing this story of life in Upper Canada the author selects for his leading character Nancy McVeigh, a widow, who kept a tavern on the Monk Road, near the waters of the Georgian Bay. The heroine was a good woman, who had a compassionate heart, a clear head, and a strong arm—characteristics which found plenty of room for play at her tavern. Like many of her kind, she did good for which she asked neither thanks nor

pay, and, in the end, she died broken-hearted. One cannot say whether Nancy McVeigh is to be taken as a representative of her class, or just a paragon; but, at all events, one may well think that, if the tavern keepers of Ontario had a tithe of her virtues, the Dominion Alliance would soon be crying in the wilderness. J. J. C.

Direct Laryngoscopy, Bronchoscopy, and Oesophagoscopy. By Dr. W. Brunings. Translated and edited by W. G. Howarth, M.A., M.B., B.C. Camb., F.R.C.S., Eng., surgeon in charge of the throat department at St. Thomas' Hospital and The Queen's Hospital for Children; surgeon laryngologist to the City of London Hospital for Diseases of the Chest, etc. London: Bailliere, Tindall & Cox, Henrietta Street, Covent Garden. 1912.

It was a happy thought which caused an English translation of Brunings' work on direct laryngoscopy, bronchoscopy, and oesophagoscopy. The combination of the clinical and technical side of the work has added very greatly to its value, and one can hardly see how anyone can expect to do anything like accurate work without having this book as a guidance. The illustrations are profuse and well chosen. The translator, Dr. W. G. Howarth, deserves the thanks of those doing this kind of work for having so well put into English the difficult German text. The publisher's work is well done. P. G. G.

Surgical Operations. A Handbook for Students and Practitioners. By Professor Friedrich Pels-Leusden, chief surgeon to the University Surgical Clinic and chief of the University Surgical Polyclinic to the Royal Charity Hospital of Berlin. Translated by Faxton E. Gardner, M.D., New York. 726 pages; 688 illustrations. Rebman Company, 1123 Broadway, New York. 1912.

The first portion of this book is devoted to a detailed description of the preparations for operation, and gives the newest methods of antisepsis and asepsis, sterilization of the hands of the surgeon and of the operation area, and of the various modes of anesthesia, with the indications and contra-indications for their employment. A summary is then given of the results of recent

researches in relation to the division and reunion of different tissues, including osteoplastic operations, and of the advances in the surgery of the blood vessels. There is a very complete description of the present status of operations on the chest. English-speaking surgeons owe a debt of gratitude to Dr. Gardner for having given them this excellent translation of a very valuable German work, reflecting, as it does, the methods in vogue in Germany at the present time. H. A. B.

Golden Rules of Diagnosis and Treatment of Diseases. Aphorisms, Observations, and Precepts on the Method of Examination and Diagnosis of Diseases, with Practical Rules of Proper Remedial Procedure. By Henry A. Cables, B.S., M.D., Professor of Medicine and Clinical Medicine of the College of Physicians and Surgeons, St. Louis; Consultant at Jefferson Hospital, St. Louis; formerly House Physician at Alexian Brothers Hospital, St. Louis; Member of the American Medical Association, Illinois State Medical Society, etc. St. Louis: C. V. Mosby Company, 1911.

One of the monograph series, devoted to the different diseases of the various organs, mentioning in as short a way as possible, what to give and what to avoid in the treatment of disease. On the same principle the author treats of the subject of Diagnosis, which brings all the differential points in a small scope, and relieves the practitioner from wading through extensive treatises. A. J. H.

A Manual of Pathology. By Guthrie McConnell, M.D., Professor of Pathology and Bacteriology, Temple University, Medical Department, Philadelphia. Second revised edition.

This is an ambitious volume wherein general and special pathology, laboratory and autopsy methods and technique and bacteriology are described. Considering the amount of ground covered by this comparatively small book, it contains a great deal of information which is concisely and clearly stated, and it should prove a very handy reference to one who wishes to look up some small point of technique or such in a hurry.

For the student it is not a good book, because it does not

discuss physiology and embryology enough in connection with the consideration of pathological conditions described. The theories regarding the changes are not given at great enough length, and practically no experimental evidence is quoted. Of course this is not possible in a volume of this size, but nevertheless that is what the student should have in a text-book.

D. E. R.

Diseases of the Stomach. A Text-book for Practitioners and Students. By MAX EINHORN, M.D., professor of clinical medicine at the New York Post-Graduate Medical School and Hospital; visiting physician to the German Hospital. Fifth edition. William Wood & Co. New York. 1911. 531 pages; 112 illustrations.

This book has been revised and enlarged, the chapter on radiography especially being brought up to date, and also that dealing with the various methods of examining the stomach and the analysis of its contents. The chapter on diet contains tables, giving the composition of the various food substances, and gives suggestions for suitable dietetic treatment in the various disorders of the stomach. It is a valuable work, in which will be found a considerable amount of important information, which should help to elucidate many of the difficult problems in connection with diseases of the stomach.

H. A. B.

Clinical Diagnosis. By JAMES CAMPBELL TODD, Ph.B., M.D. Second edition. Philadelphia and London: W. B. Saunders Co.

A second edition of this useful manual has appeared. There are nine sections and an appendix, which in turn deal with all the ordinary fluids of the body.

Space was also found for such important subjects as Annual Parasites, Bacteriologic Methods, and Preparation and use of Vaccines.

The Appendix is a guide to the preparation of reagents and stains.

While the admission in the preface is that the work is not for the trained laboratory worker, yet one gains throughout a knowledge of recent investigation, having the technique practi-

cally stated. Among the many new methods may be mentioned the Antifornin method for the detection of tubercle; the significance of albumen in sputum; the formative method for the estimation of nitrogen, and a new sugar solution.

On the whole, the work is excellent, clearly and concisely presenting the various laboratory methods which are of use in clinical medicine. W. H. B.

Anesthetics. By J. BLUMFELD, M.D., Cantab., Senior Anesthetist to St. George's Hospital, Lecturer on Anesthetics to St. Mary's Hospital, etc. Published by Bailliere, Tindall & Cox, Covent Garden, London.

The third edition of this work, recently published, while it still retains the characteristics of conciseness and clearness, so noticeable in the previous editions, has been brought up-to-date by revision of the former editions, and the addition of chapters on the open method of administering ether, the use of hypodermic injections preliminary to inhalations, and also by a short description of local and special analgesia, such as spinal and intravenous.

This is a valuable book for students. S. J.

The Special Class for Backward Children. An Educational Experiment. Philadelphia: *Am. Psychological Clinic Press.*

Prof. Lightner Witmer has rendered a great service to all those who are interested in special classes for backward children and, much more, those who work for feeble-minded children, by conducting and recording, under almost ideal conditions, the work of a special class opened in connection with the psychological clinic of the University of Pennsylvania. There are over forty good pictures of the work. The book consists of nine chapters, as follows:

1. Motives and Aims. Lightner Witmer.
2. The Purpose and Organization of the Special Class. Arthur Holmes.
3. The Children of the Special Class. Arthur Holmes.
4. The Educational Organization. Elizabeth E. Farrell.
5. The Work of the Special Class. Elizabeth E. Farrell.

6. Round Table Discussions With Student Observers. Elizabeth E. Farrell.

7. Nutrition and Growth. Louise Stevens Bryant.

8. Report from the Social Service Department. Louise Stevens Bryant.

9. Clinical Psychology and the Professional Training of Teachers. Lightner Witmer.

The plan of work was this: Eighteen backward children, all more or less deficient both physically and mentally, were organized into a special class. Everything possible was done to improve the children's health, home conditions, happiness, etc. Miss Farrell, of New York, and two of her assistants were put in charge. A certain number of teachers interested in special class work were admitted as teachers-in-training, and all the resources of the psychological department were made available to assist in the work. The result is a most valuable record of special class work. This book is indispensable to those who are interested in special classes. H. M'M.

Manual of Operative Surgery. By JOHN FAIRBAIRN BINNIE, A.M., C.M. Aberdeen; surgeon to the General Hospital, Kansas City, Mo.; fellow of the American Surgical Association; membre de la Société de Chirurgie. Fifth edition. 1153 pages; 1365 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1911.

This work has been issued in a single volume instead of two, as formerly. It has been found possible to do this without materially altering the character of the work. The various methods of treatment of tic douloureux, including the injection of alcohol and other substances into the nerves, are described in considerable detail, and the same may be said of the chapter on goitre. When dealing with abdominal surgery the writer expresses the opinion that operation is indicated in every case of chronic gastric ulcer with hemorrhage, and also in cases in which the ulcer gives rise to gastric dilatation, hour-glass stomach, or gastralgia, and that obstinate dyspepsia invariably calls for operation if medicinal measures have failed to give relief after a fair trial. The book is altogether of a very high degree of excellence, and is very copiously illustrated, which adds materially to its value.

The illustrations in connection with stomach work are particularly good. All the more recent operations are included, as, for example, Förster's operation for spasticity and athetosis.

H. A. B.

False Modesty. By E. B. Lowry, M.D. Chicago: Forbes & Co.

This is the fourth of a series of books the aim of which is excellent—namely, to do something to improve the conditions of modern life in regard to certain moral questions and ideals. The author is one of those who think that the desired remedy is more candid speech and more direct education on matters pertaining to the duties of married life, and especially the instruction of children in biological truths about themselves and the way in which the human race is perpetuated. There is doubtless some truth in this view, and many things in the book are excellent, especially the chapter on homeless girls. Many of the author's positions are unassailable—for example, the plea that nothing but truth should ever be told about anything. H. M'M.

Seventh Edition of Dr. S. A. Knopf's International Prize Essay on Tuberculosis.

The new (seventh) edition of Dr. S. Adolphus Knopf's International Prize Essay, "Tuberculosis as a Disease of the Masses and How to Combat It," has just been translated into French by Dr. Eugene Grenier of the Bruchesi Tuberculosis Institute of Montreal. The proceeds of the sale of this book will be for the benefit of this institute. The first translation of a former edition into French appeared some years ago in Paris. Dr. Grenier's new French-Canadian translation represents the 28th foreign edition which, with the seven American ones, makes 35 editions in 24 different languages which have appeared within the last ten years. They are the American (7), Arabic, Bohemian, Brazilian, Bulgarian, Canadian, Chinese (2), Dutch, English, Finnish, French, German, Hebrew, Hindu, Hungarian, Icelandic, Italian (2), Japanese, Mexican, Norwegian, Polish, Russian (2), Servian, Spanish, Swedish and Turkish. Since the book was written mainly for the education of the laity this unusually large circulation speaks well for the world-wide interest of the masses in tuberculosis, in whose interest the Berlin International Tuber-

culosis Congress offered and awarded the prize. Dr. Grenier's translation is on sale at The Librairie Beauchemin, Limitee, 79 Rue Saint Jacques, Montreal, and at its branch store in the United States, 20 Mechanic Street, Worcester, Mass. Price, 25c. per copy.

Electricity in Eye, Ear, Nose and Throat Work.

Every physician who is interested in learning of the latest and most effective adaptations of electricity in eye, ear, nose and throat practice should secure a copy of an attractive booklet entitled "Electricity in Eye, Ear, Nose and Throat Work," issued by the McIntosh Battery and Optical Co., 322 W. Washington St., Chicago, Ill. This handsome brochure gives full clinical data, as well as handsome cuts showing operative procedure, and will be forwarded to any physician making request for same.

Principles of Anatomy. The Abdomen Proper. By William Cuthbert Morton, M.A., M.D., Edinburgh. New York: Rebman Company.

This book is the first of a series of text-books designed to cover the whole of human anatomy. Two new ideas have been introduced, which immediately make the work worthy of attention. These are seen in the system of indexing and in the plates. The book is written in the form of a dissector that is, the dissection is outlined and the descriptive matter is arranged in such a way as to keep pace with the dissection. In the ordinary dissector the student often finds difficulty in correlating the anatomy of various parts of organs, vessels, etc., because of the necessity of dissecting them in sections to provide for the exigencies of the dissecting room. For example, the student usually dissects part of the subclavian artery at two or three different times, separated by weeks, and he finds the descriptions of these parts separated by wide intervals in his text-book. As a result, when he wishes to study the subclavian artery as a whole, he gives up his dissector with which he is familiar, and turns to a text-book of descriptive anatomy, thus losing valuable time in accustoming himself to a new text-book. By carefully mapping out the parts to be dissected, and by avoiding overlapping or

repetition of the descriptions, and by indexing the various structures in the order in which the anatomy would be dealt with in a general description of the part, the student has been enabled to piece together the various paragraphs until he has a word picture which, while being complete, has the advantage of being familiar to him.

The diagrams are excellent. With this volume are twelve sheets, in loose leaves, with plates on either side. These plates are so designed that if studied in order they represent the relations and depict the anatomical appearances of all the structures met with, in their regular order of dissection. In this way, if four or five plates are examined in series, the anatomy of such a structure as the spermatic cord is splendidly demonstrated by the removal seriatim of the various layers from the skin to the vas. Further, the plate on the back of each sheet represents additional structures as seen from the back, and if the sheet is held up to the light the relation of superficial to deeper structures can be made out. By displacing the order of the plates the relation of any superficial structure to a structure at any depth can be seen. By means of cut-out leaves, front views of the colon, duodenum, spleen, pancreas, etc., and their relations are excellently shown.

The system appears to be an excellent one, and it is to be hoped that the success attending the publication of this volume will warrant the completing of the series for the whole body.

W. E. G.

The Mechanism of Life—(New York: Rebman Co.)—by Stephane Leduc, Professor in the Medical School in Nantes, France, is to the chemist, the physicist, and particularly to the biologist, an exceedingly interesting study of the application of physical laws to the life processes taking place in the living cell, and to the possible origin of life.

The preliminary chapters, devoted to the various laws of Physics and their application to the study of the processes of diffusion and asmosis in artificial colloidal membranes, serve as the basis on which he builds up his experimental work. It is then shown that the cellular structure of plants, for instance, may be artificially produced in gelatin plates, by sowing upon it drops of a solution of potassium ferrocyanide. The drops appear as polygonal cells, with a membraneous envelope,

a nucleus and cytoplasm, as in real tissue, each sell showing an arena of molecular movement, which molecular activity it is claimed may be prolonged by appropriate nourishment. Photographs are shown, produced in the same way, that is by solution of salt pigmented with India ink, which show a remarkable resemblance to the various stages in the process of karyokinesis in the living cell, such as the achromatic spindle, segmentation of the chromatin, division of nucleus, centrosomes, etc.

The chapter on "A Study in Morphogenesis" is particularly interesting. Osmotic cells are produced, for instance, by dropping fragments of fused calcium chloride into a solution of tribasic calcium phosphate, the calcium chloride becoming surrounded by an osmotic membrane of transparent and perfectly extensible calcium carbonate or phospate. The first osmotic cell thus formed may give birth to a second cell or vesicle, and so on, so that finally an association of microscopic cellular cavities, separated by osmotic walls, result, closely resembling those which we meet with in a living organism.

Some of the photographs of such cosmotic growth resemble, to a remarkable extent, certain moulds, mushrooms, and other fungi; others resemble beautiful growths, like madrepores or corals, while others again resemble aquatic plant stems, amaebae and sea shells.

The final chapters on the phenomena of life and evolution must be read in order to appreciate his arguments in favor of the spontaneous generation of life through purely physical agencies.

"Diffusion and osmosis are the elementary phenomena of life. All vital phenomena result from the contact of two colloidal solutions, or of two liquids, separated by an osmotic membrane. Hence the study of the physics of diffusion and osmosis is the very basis of synthetic biology," and expresses in brief Leduc's belief. That the Acadamie des Sciences excluded from its Comptes Rendus in 1907, the report of these experimental researches, because they touched too closely on the burning question of spontaneous generation, makes the work none the less interesting to the reader. Though such novel theories are, as a rule, received with a more or less antagonistic attitude, the reader will be inclined to think, with Hamlet, after he has read the book, that "There are more things in heaven and earth, Horatio, than are dreamed of in your philosophy."

Corroboration of this work will mean that remarkable progress has been made toward the solution of the mechanical principles involved in all cellular life processes, even if it does not finally solve the problem of the origin of life to the reader.

G. G. N.

A PURE GRAPE JUICE, PARTICULARLY SUITABLE FOR USE BY THE SICK*

THERE is perhaps no class of men who know better than physicians how refreshing and palatable, especially to the fever patient, is a little iced grape juice, particularly during the warm weather. That a pure grape juice contains medicinal qualities there is no question, being not only exceedingly refreshing and invigorating, but mildly stimulating in character. Medical practitioners have recognized for years the value of the juice of the grape in the treatment of many forms of sickness, though more especially in the treatment of typhoid fever and other disorders of the intestinal tract, where the tongue becomes coated and parched, and where it is found injudicious to allow the administration of solid food. The writer has known of several cases of typhoid fever where the only food administered was a grape juice, one case in particular where the patient could not digest milk in any form. In Switzerland and Germany there have of recent years been opened establishments known as "Grape Cure Establishments," and where those who have suffered from gastric or intestinal trouble go to have a cure effected, with wonderful results.

There are a number of grape juices on the market, some good and some quite indifferent. One of the really good ones is that prepared by Mr. E. D. Smith, of Winona, Ontario. Mr. Smith bottles nothing but *the pure* expressed *grape juice.* He is anxious that the medical profession should become acquainted with this product, and invites physicians to try it for themselves, and when satisfied that it is all that he claims for it, to prescribe it for their patients. This Grape Juice can be procured at almost any drug store or direct from the manufacturer, and is worthy of more than passing notice.

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* Publisher's Department.

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Listerine is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils.

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There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues ; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

In the treatment of summer complaints of infants and children, Listerine is extensively prescribed in doses of 10 drops to a teaspoonful.

In febrile conditions, nothing is comparable to Listerine as a mouth wash ; two or three drachms to four ounces of water.

"The Inhibitory Action of Listerine," 128 pages descriptive of the antiseptic, may be had upon application to the manufacturers,

LAMBERT PHARMACAL COMPANY,

Church and Gerrard Streets Toronto, Ontario

VACCINE-THERAPY IN RHEUMATOID ARTHRITIS

BY THOMAS J. HORDER, M.D., LOND., F.R.C.P. LOND.
Assistant Physician to St. Bartholomew's Hospital.

Not "the vaccine treatment of rheumatoid arthritis," but "vaccines in the treatment of rheumatoid arthritis." For it is as illogical to conceive of the use of vaccines as covering the whole treatment of this complex and distressing disease as it is to conceive of the use of tuberculin as covering the whole treatment of pulmonary phthisis. Less logical, indeed, because there is much less of a definite entity about the disease we call rheumatoid arthritis than there is about phthisis; individual cases show great variations and require different treatment, even in principle. Yet one would think, judging by the baldness of the therapeutics often adopted, that the disease is very specific in its nature, and that, provided all the patients suffering from it take sufficient guaiacol carbonate over a sufficiently long period of time, or submit to a course of ionisation of the affected joints, or undergo a series of inoculations with a micro-organism obtained from the saliva or from the stools, they will either get well or may be regarded as incurable.

Vaccine-therapy certainly occupies an important place in the therapeutist's armamentarium in this disease, but it is only one part of the available means of treatment. In some cases it is altogether unnecessary; in a few it is positively harmful. As undertaken by some practitioners who have waived the question of evidence that there is any causal connection between the micro-organism used in the preparation of the vaccine and the arthritis, it is a discredit to modern medicine, if not injurious to the patient. This sort of vaccine-therapy has become quite fashionable at certain English watering places, a fact tending to show how little faith the balneologists have in the efficacy of their own spas.

Every case of "rheumatoid arthritis" should be considered upon its own merits. I think it would be no loss if we dropped the term "rheumatoid arthritis" altogether and spoke only of multiple arthritis, of which, after all, "rheumatoid arthritis" is only a specialised form. To pigeon-hole the cases under a generic term is fatal to effective treatment, for effective treatment depends upon recognition of the differentia of the various examples as they present themselves for cure. The proper examination of the case entails two separate investigations: (1) a critical analysis of the symptoms and signs, as referable to changes in joints, muscles, nerve tissues, blood, and general nutrition; and (2) an examination which has for its special object the discovery of one or more foci of infection. In this second part of the examination careful attention is paid to the mouth, the fauces, the nose, naso-pharynx and nasal sinuses, the respiratory tract, the small and large intestine, the urinary tract, and the uterus. The routine examinations thus involved may require special methods of clinical investigation, for they are of the utmost importance. Any lesion in one or more of these situations is carefully noted and a thorough examination is then made of the bacterial flora connected with it. This may call for great care in the collection of exudates or secretions, and is perhaps the most important of all the stages in the examination so far as the question of vaccine-therapy is concerned.

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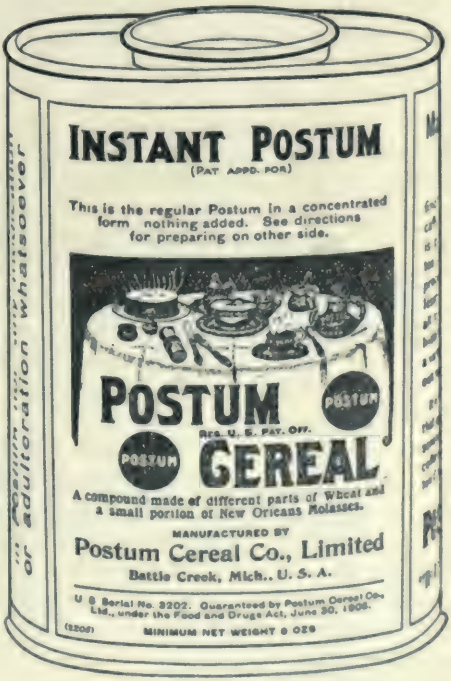
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Due consideration is then given to the nature and numbers of the micro-organisms obtained and the special evidence of affinity between them and the arthritis. Merely to deal with any micro-organism casually grown from a patient's gums, or urine, or feces, is asking for disappointment in results.

In dealing with the infective focus, if such is found, it must constantly be remembered that the first principle in treatment is to secure efficient drainage. Unless this is established all vaccine treatment is vain. Local treatment, therefore, should always precede inoculation. If the local treatment involves surgical procedures, such as the extraction of several septic teeth, the excision or curetting of an ulcer, or the removal of an infected tonsil or polypus, it is sound treatment to protect the patient against a temporary exacerbation of his infection by giving him two or three preliminary inoculations with the appropriate vaccine. This is more by way of prophylaxis than as curative treatment. But to subject the patient to a prolonged course of vaccine-therapy and to leave the local focus of infection to look after itself is to reverse the order of commonsense procedures. All vaccine-therapy should be held in reserve for at least 14 days after surgical measures have been undertaken, for as a result of these measures the patient is very apt to inoculate himself, and this forms a definite contra-indication to the addition of fresh antigen or bacterial toxin whilst the temporary auto-inoculation is proceeding. Moreover, this interval will serve also to show or to indicate what good, if any, is likely to result from the adoption of local measures. Sometimes the good result is so manifest that the practitioner feels justified in holding his hand in the matter of vaccines, and if the good result continues he may do well to hold his hand altogether. Such forbearance at a time like this, when vaccines are the vogue, is all too rarely seen. Yet it is necessary, if for no other reason than to give the observer some clear view of what is due to vaccine treatment and what is not. Paradox though it sounds, it is possible that the best estimate of a man's success with inoculation treatment is the number of unused vaccines he has upon his shelves.

Assuming then, that all the points in the general management of the case are receiving thorough attention, and that the infective focus, brought to light, is also receiving local treatment, we may proceed cautiously to raise by specific means the level of the patient's immunity against the residual infection going on at the site of the original invasion or against secondary foci in the body which cannot be dealt with directly. The means available are: (1) immune sera, by which it may be possible to supply temporarily a degree of passive immunity; and (2) vaccines by which it is hoped to stimulate the patient to a more permanently useful degree of active immunity. If the case is acute or subacute, and the evidences of intoxication are a noticeable feature of the case, the preliminary use of immune serum is indicated. In the more chronic cases, which are much more common, resort may be had forthwith to autogenous vaccines.

In actual practice the micro-organism most often incriminated as the infective element in the disease is a type of streptococcus, not S. pyogenes, but S. salivarius or S. fæcalis—i.e., streptococci of relatively low virulence, not tending to suppuration and traceable, as the names are intended to suggest, to the mouth or intestine. Other micro-organisms are much less common; the gonococcus, pneumo-coccus, and B. coli almost exhaust the

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series, as at present established by reliable observations. Perhaps Staph. aureus vel albus, B. influenzæ, and certain diphtheroids may be included in the list.

The initial dose of vaccine should always be small. My advice to many inquirers is like the schoolboys' game at arithmetic: "Think of a number; halve it." No good comes, and no time is eventually saved, by starting off with other than small doses. I use 5,000,000 killed streptococci in ordinary cases, but 2,500,000 if the case has any acute or subacute symptoms. The dose is very gradually increased, and with the increase, the time interval, which should be from eight to ten days, is increased also. I give the vaccine always by the subcutaneous route. The treatment should be continued over a period of at least three months before conclusions can be safely drawn as to results, unless there are contra-indications for suspending the inoculations, such as increase in pain or stiffness or swelling of the joints, loss of weight, or nerve disturbances. Some patients seem very susceptible to the treatment, and care must be exercised not to produce a deterioration in the general condition, which it is of such vital importance to maintain at a high level in this disease. Careful observations must be maintained, but these do not require more skill than the practitioner is himself possessed of. The use of the "opsonic index" as a guide to treatment, however theoretically attractive, does not seem in actual practice to have proved of real service. Moreover, in most streptococcal infections the phagocytic power of the leucocytes is almost impossible to gauge with any degree of accuracy.

As regards the results of vaccine treatment in "rheumatoid arthritis," it is at present extremely difficult to arrive at definite conclusions. The difficulty is due partly to the fact that, as already emphasized, inoculations should only form one part of the treatment, and partly to the fact that in so many cases irretrievable damage is already done to the joints when the treatment is begun. But allowing for these difficulties, the results are, on the whole, very encouraging. Many cases seem, more often and more quickly than formerly, to emerge from the active into the quiescent stage of the disease, and a few appear to be altogether arrested. Everything seems to depend upon the degree to which it can be confidently asserted that the micro-organism dealt with is really a causal factor, and the main one, in keeping the joints in a state of smouldering inflammation.

THE CAR BUILT WITH UTMOST CARE

Readers of this journal are referred to page xxxiii of this issue. There they will see the page announcement of the Hupp Motor Car Company, of Windsor, Ontario. It will be noticed that this company build their cars, not for this year or next year, but "for the future." They are so jealous of every detail that enters into the Hupp Motor that every joint and bearing are subjected to a series of tests, so that nothing with the slightest flaw can slip out of the shop and cause trouble to a customer. The company are anxious that their car will be in a class by itself, "the best car in the world." The Hupp is essentially a physician's car in price, reliability, and service. If ready, just buy—that's all.

BACTERINS

Bacterins (bacterial vaccines) are killed bacteria suspended in physiological salt solution. They stimulate the production of protective substances (antibodies) and are used to prevent or overcome bacterial infections.

Each bacterin is indicated for the infection caused by its corresponding bacterium; for instance, a staphylococcic bacterin is used for staphylococcic infection. Accurate diagnosis is therefore necessary.

For the general practitioner the use of stock bacterins is advisable because valuable time is thereby saved.

It is well recognized that mixed infections are usually present in infectious diseases. **"Mixed" and "polyvalent" (many different strains) bacterins are therefore becoming deservedly popular.** As regards their use, Polak states:

> "The mixed vaccines of reliable laboratories have given better results than when a single variety was used. This has been shown repeatedly in the blood picture when an autogenous vaccine of a single strain used in large doses up to 500,000,000 has failed to increase the leucocyte-count or diminish the polynuclear percentage, the mixed vaccines of several strains have promptly produced a marked leucocytosis. Even colon bacillus infections, such as the infection of a pelvic hematocele by the colon bacillus, have yielded more promptly to mixed vaccines of polyvalent strains than when a single autogenous germ has been used." (*Journal American Medical Association*, November 25, 1911, p. 1738.)

The prophylactic value of bacterins is proved beyond question in typhoid fever, and preventive medicine suggests immunization against streptococcic, colon, staphylococcic, pneumococcic and tubercular infections by the use of their corresponding bacterins.

The results following the general use in the U. S. Army of typho-bacterin in protective vaccination against typhoid fever are little short of marvelous. "During the past three years 60,000 men completed the three inoculations; but twelve cases of typhoid fever developed during this time and no death occurred." (Phalen and Callison, *Medical Record*, December 9, 1911, p. 1203.)

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Coli-Bacterin (B. Coli Vaccine)
Influenza-Bacterin Mixed (Influenza Vaccine Mixed)
Friedlaender-Bacterin (Friedlaender Vaccine)
Neisser-Bacterin (Gonococcic Vaccine)
Neisser-Bacterin Mixed (Gonococcic Vaccine Mixed)
Neoformans-Bacterin (Neoformans Vaccine)
Pneumo-Bacterin (Pneumococcic Vaccine)
Pneumo-Bacterin Mixed (Pneumococcic Vaccine Mixed)
Pulmonary-Bacterin Mixed
Pyocyano-Bacterin (Pyocyaneus Vaccine)
Scarlatina-Bacterin (Scarlet Fever Vaccine)
Staphylo-Bacterin (Staphylococcic Vaccine)
Staphylo-Bacterin Mixed (Mixed Staphylococcic Vaccine)
Staphylo-Acne-Bacterin (Staphylo-Acne Vaccine)
Staphylo-Albus Bacterin (Staphylo-Albus Vaccine)
Staphylo-Aureus Bacterin (Staphylo-Aureus Vaccine)
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MODIFIED MILK POWDER (C.M.P.)

EVERY mother knows that milk (cows' milk) will not agree with a young baby and that it is customary to dilute the milk and add other substances to it (usually called infant foods). For infant feeding, cows' milk is far too rich in casein or curd (from which cheese is made) and is deficient in albumen and milk sugar; hence the physician is obliged to change or modify its parts to make it agree with the baby.

If any of the older methods of preparing cows' milk for babies could change the milk so as to make it exactly like mothers' milk there would be no difficulty in making it agree with the average baby. Now, this can only be done by *taking out* some of the curd, *adding* more *natural* milk albumen and *natural* milk sugar. This cannot be done by the addition of "infant foods," which are ordinarily made from malt and other cereals which are not natural parts of mothers' milk.

HOME MODIFICATION OF MILK.

Home modification, so-called, is practised for the purpose of fitting milk to the needs of the baby. Dilution with water or starchy gruels, the addition of cane or milk sugar and lime water is the usual process adopted. If these methods were right theoretically, the mothers of to-day who are unable to nurse their children would not have so much difficulty in finding "something to agree with my baby."

The large amount of curd that these home modifications contain almost always upsets the child's digestion, and loss of weight, constipation or diarrhea closely follow the continued feeding of such foods.

For some time past laboratories have been established in only the larger cities where milk is modified by experts for each case according to the prescription of the attending physician. This is a long step in the right direction. The cost of such milk has, however, proved to be excessive, and the average family cannot afford to use it. One trouble has been apparent with all methods of preparing milk for the baby's food. Nature intends a baby to be fed on a milk that contains twice as much albumen and only half as much curd as cows' milk. Nature never intended that a baby should be fed on a milk that contained twice as much curd and only half as much albumen as mothers' milk. Condensed milk, evaporated milk and fresh milk are all deficient in milk albumen. This deficiency cannot be supplied by any of the "infant foods" or materials commonly used to modify milk, for they do not contain milk albumen except perhaps in very small amounts.

Egg albumen has been tried to supply the deficiency of milk albumen, but has always proved a failure. The white of the egg is not pure albumen. It contains globulin, which is not soluble in water, and other nitrogenous materials which are "too heavy" and difficult of digestion to make the egg albumen a satisfactory substitute for milk albumen.

Such products which have been offered to the public for many years are made by processes which cook the milk so that it is deprived of its freshness and much of its value in infant feeding is lost. This has given rise to the statement that infants fed on such products are susceptible to scurvy and rickets, even if they survive the first summer with its almost inevitable bowel troubles. These products are no longer fresh.

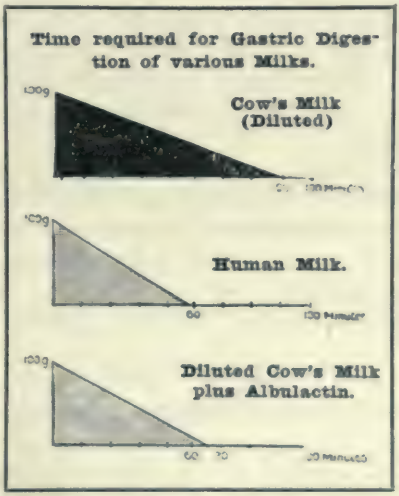
Attempts to "humanize" cows' milk by the use of pepsin merely predigest

Experiments showing the Influence of Albulactin on the Motility of the Stomach.

A NATURAL AID TO INFANTILE DIGESTION

Important clinical interest attaches to the experiments recently made by Prof. A. Bickel and Dr. H. Roeder, of the Royal Pathological Institute in Berlin, regarding the use of Albulactin for the artificial feeding of infants. (*See "Med. Press and Circular," May 4th, 1910.*)

Albulactin is the soluble form of milk-albumin, or the real albumin of milk as distinguished from the casein. This substance is now recognized as being not only the essential nutritive element in human milk, but also the chief cause of its easy digestibility. Human milk contains three times as much of it as cow's milk. By adding the right proportion of milk-albumin, or Albulactin, to diluted cow's milk, a milk is obtained practically identical with the human fluid.



The object of these experiments was to determine the exact length of time required for gastric digestion of an equal quantity (100 grammes) of (1) Diluted Cow's Milk, (2) Human Milk, (3) Diluted Cow's Milk *plus* Albulactin. These were given by means of an œsophageal tube to fasting animals with a permanent duodenal cannula in the side. The solutions were tinted with Berlin Blue to ascertain the exact period which elapsed from the stomach beginning to empty itself until the process was complete.

The experiments may be summarized by stating that gastric digestion was performed in about 90 minutes in the case of diluted cow's milk, in 56 minutes in the case of human milk, and in 62 minutes in the case of diluted cow's milk plus Albulactin, as shown in the accompanying diagram.

These facts encouraged Dr. Roeder to use Albulactin in the feeding of infants suffering from various diseased conditions, and the results which he obtained were in every case highly satisfactory. The author's investigations may be summarized as follows:—

(1) Diluted cow's milk tends to inhibit gastric motility because its thick curd offers only a small surface to the action of the gastric juice, and consequently requires a longer time for digestion than human milk.

(2) The curds formed by cow's milk plus Albulactin are as fine, soft and minute as those yielded by the human fluid. They are propelled from the stomach with a minimum expenditure of energy and in practically the same time as the curds of human milk.

(3) The addition of Albulactin to diluted cow's milk stimulates the motor activity of the stomach and therefore actually aids the digestive process.

Literature and Samples supplied free to medical men on application to Messrs. A. Wulfing & Co., 12 Chenies Street, London, W.C., manufacturers of Sanatogen, Formamint and Albulactin.

ALBULACTIN

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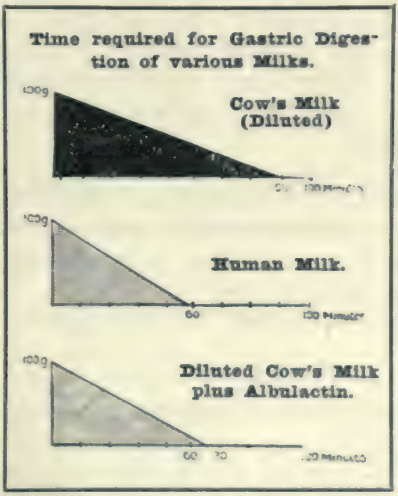

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ALBULACTIN

the milk. An infant does not require a predigested food; it requires a food that its own stomach can digest. Predigested foods are many times responsible for weak stomachs after weaning.

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W. LINTZ, Brooklyn (*Journal A. M. A.*, May 18), describes and illustrates a time and labor-saving device for the staining of organic tissues. It consists of a shallow funnel with a stopcock in its stem below. Into the top of the funnel there is fitted a removable, flat, shallow, finely perforated tray, divided into several compartments. The size of the funnel is about 6 inches in diameter, and the number of compartments depends on the scope of the work—from twelve to twenty-four. It can be used for both the celloidin and the paraffin methods, the various tissues and organs being placed in separate compartments to avoid mixing. If the paraffin method is used the sections should be fixed on cover glasses in the usual way. From now on the usual procedure is followed by pouring in proper order on the specimens the various necessary staining solutions, draining off each after it has been sufficiently used. Lintz claims that a thousand or more specimens can be thus stained at the same time that it takes to stain one by other methods. There is no chance of confusion of tissues or injury by handling. Stain is economized, as it is drained off into the bottle after use. The results are uniform, as the same tissues are exposed for the same length of time. It saves the trouble of having different vessels standing around, and the apparatus can be easily improvised.

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IRRITANT POISONING FROM CHEWING THE SHOOTS AND LEAVES OF DIEFFENBACHIA SEGUINA

BY ALEX. NAPIER, M.D., GLASG., F.R.F.P.S., GLASG.
Physician, Victoria Infirmary, Glasgow; Examiner in Medicine, Glasgow University.

Two cases of rather severe local irritant poisoning from a somewhat unusual cause have come under my observation lately. At about 4 o'clock on the afternoon of Feb. 15th a gardener employed in hothouse work gave to three laborers who were assisting him a few leaves and shoots of a plant to chew, saying they would taste just like tobacco; this was done as a trick, but the results exceeded expectations. One of the laborers simply had the plant in his mouth for a few seconds, and on tasting it at once spat it out; even so his lips and tongue became sore and swollen, but not so severely as to cause him to enter hospital. He went home and was lost sight of. The other two attended at the infirmary.

Case 1.—The patient, a man, aged 34 years, was admitted to the Victoria Infirmary, Glasgow, about an hour after his misadventure. He had chewed the plant vigorously, mainly in the left side of his mouth, this being instantly followed by severe burning pain in the mouth, tongue, and lips, and then by marked swelling of the tongue, lips, and cheeks.

On admission speech was impossible, owing to the enormous degree of swelling of the tongue, most marked on its left side; the tongue filled the mouth, protruded slightly, and was almost quite immobile. There was a constant dribbling of saliva from the mouth. The upper and lower lips were very much swollen, especially toward the left; while the soft tissues of both cheeks were greatly swollen, indurated, and tender. Both submaxillary glands were much enlarged and tender, especially on the left side, and the left parotid gland was swollen. The tongue was coated with a thick, creamy soft fur, its mucous covering was edematous, with here and there some small blisters on its upper and under surfaces. Swallowing was almost impossible and breathing a matter of extreme difficulty. There was no rise of temperature throughout; all the other organs were normal, but examination of the urine showed slight reduction of Fehling's solution.

Treatment.—In view of the respiratory difficulty and of the possibility of extension of the swelling to the larynx preparations for tracheotomy were made should it be required. The operation was rendered unnecessary, however, by the vigorous use of ice externally and as far as possible by the mouth, and also by the use of a spray containing adrenalin and cocaine. Under this line of treatment the swelling and pain gradually subsided, but a week elapsed before the patient could leave hospital, and even then the left parotid gland was still slightly enlarged and tender.

Case 2.—This patient, a man aged 52, suffered even more severely than the former one, having chewed the shoots of the plant more energetically and for a longer time. He presented exactly the same appearances locally, but on a more extensive scale, the tongue in particular being uniformly and not unilaterally enlarged. In the course of the first night after admission he was repeatedly nearly suffocating owing to recurring attacks of dyspnea. In this case also the urine gave a slight reduction of Fehling's solution. When

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It follows that at every breath there is danger of infection from the germs inhaled with the floating dust.

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the patient was dismissed a week later there was still considerable enlargement of the left submaxillary gland.

There can be no doubt at all as to the extreme energy with which the juice of this plant acts as a local irritant, especially to mucous surfaces. There is not much detailed information to be got regarding it in any of the sources to which I have had access. Dorvault's "l'Officine" (Paris, 1880) has at p. 530 a short note to the following effect: "The *Arum of the Antilles; Arum* or *Caladium Seguinum, Dieffenbachia Seguina,* the *Dumb Cane* in English; derived from the West Indies, having the general appearance of a banana plant, a repulsive odor, and a corrosive and poisonous juice; used as a fomentation, as a diuretic, and a remedy for gout." Foster's "Illustrated Encyclopedic Medical Dictionary" adds little to this. After stating the plant's position botanically, among the arums, and giving a list of species, it goes to say: "Dumb Cane, a West Indian species, highly poisonous, the juice being so acrid as to cause the tongue to swell and prevent articulation. An ointment is prepared from it by the negroes of the West Indies by boiling it in lard, which they use for dropsical swellings. The plant has also been recommended to be used internally for dropsy. A wholesome starch has been obtained from the stem. The juice is used for marking on linen."

From the foregoing it may be inferred that in olden times in the West Indies refractory slaves were made to chew the plant as a punishment, and judging from its action in the above-noted cases the power of the plant to produce dumbness (of a kind) is entirely beyond question.

STANDARD FLOOR DRESSING

THE usual methods of cleaning wooden floors are probably the worst possible ones.

Dry sweeping allows dust and germs to gather in the crevices. With the slightest vibration or draft, this dust is displaced and sent circulating through the air.

Sweeping with wet sawdust or sprinkling the floor with water is also unsatisfactory. It is true this method eliminates much of the flying dust of dry sweeping. But it is impossible to remove such of the dust as becomes moistened and adheres to the floor, and when the water evaporates this dust is again circulated through the air by every movement.

Sanitation also has an important bearing in any building where human beings are gathered under the same roof. Petty illnesses resulting from improper sanitary conditions cause a big item of expense in mercantile enterprises generally, and they are largely responsible for decreased attendance in offices and schools.

Throat troubles, typhoid fever, diphtheria, tuberculosis and pneumonia are communicated by floor dust. Floor "cleaning" methods that allow these conditions to exist should be discarded quickly. If wooden floors were treated properly 90 per cent. of the dust evil would disappear.

Standard Floor Dressing is a preparation for the care and maintenance of wooden floors, and is manufactured especially for use in factories, schools,

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department stores, warehouses, office buildings and retail stores. Its performance is twofold.

(1) It *holds down* all dust settling on the floor and prevents it from again circulating in the air, while its natural properties are such that germs cannot find subsistence in it.

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Standard Floor Dressing should be applied in a thin, even coat like a paint or varnish. Three or four applications a year, except where floors are under unusually heavy traffic, are enough to keep them in first-class condition.

A NEW NASAL ATTACHMENT FOR "VAPOROLE" AMMONIUM CHLORIDE INHALER

Ammonium Chloride Vapor is usually inhaled by the mouth, but in some cases it is preferable to inhale through the nostrils and allow the vapor to escape by the mouth. For this purpose a new nasal attachment has been introduced by Messrs. Burroughs, Wellcome & Co. Instead of twin bulbs to go inside the nares, an expanded orifice with flanged edges is used. It is made of glass, and so shaped as to be adapted to the physical configuration of any patient.

The orifice is placed in position beneath the nose, and the depression in the centre permits the flanged edges to enclose the outer edges of the nares.

This method is to be preferred both on aesthetic and hygienic grounds. The new nasal attachment is fitted with a rubber plug for the reception of the ordinary mouthpiece of the "Vaporole" Ammonium Chloride Inhaler, thus rendering the complete outfit suitable for either nasal or oral inhalations. A noteworthy feature of the "Vaporole" Inhaler is the exact measurement of ammonia and acid which is effected by supplying the requisite quantity of each in atomic proportions in two hermetically-sealed glass containers covered with gauze. These "Vaporole" containers are fractured and placed in a tube, and the mingled vapors automatically filtered, and supplied with sufficient moisture, are inhaled in a pure and neutral condition.

BATHS OF EVERY DESCRIPTION, MASSAGE IN ALL ITS BRANCHES, SWEDISH MOVEMENTS, VIBRATORY TREATMENT, ETC.

At No. 20 Walmer Road, Toronto, physicians are able to have their patients treated, under their own supervision and direction, to massage in all its branches; baths, including electric light, shower, needle, etc.; Swedish movements and vibration. This institution was recently opened by Mrs. Neil MacKinnon, a masseuse of Scottish training. She employs a German masseur, who is on duty at all hours for male patients. Mrs. MacKinnon's institution is first-class in every respect, and conducted along scientific lines. She invites physicians to call and see for themselves the facilities afforded for the treatment of patients of both sexes.

"while it is said that 'religion follows the flag' it is also a fact that therapeutic results invariably follow the application of certain accepted remedies.

The primal thought following diagnosis is treatment, and in the selection of a remedy consideration is given to those possessing reliability of therapeutic action and should it be a case presenting inflammatory or congestive involvements, whether deep or superficial, antiphlogistine would, from extensive clinical evidence, seem indicated.

In the treatment of bee stings, insect bites, dermatitis from exposure to the sun rays, sprains, etc., so prevalent at this season, antiphlogistine applied thick and hot will afford unmeasurable relief.

The convenience of application of this dressing is a factor. It is supplied in aseptic containers carefully sealed and the contents are fully protected."

PHYSIOLOGIC THERAPEUTICS AT MUDLAVIA

THE sanitarium or health resort fills a well-defined province in the physician's life-work by reaching that large class which would make too many demands upon his time and equipment in private practice; and which, on the other hand, is not a proper class for hospital cases.

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A thick layer of this vegetable-earth properly heated is spread on a specially constructed cot on which the patient reclines. He is then covered, except head and chest, in the pack and allowed to remain such a time under observation of an attendant as the medical staff have prescribed. The patient then goes under a warm shower and is once more clean, except for an active perspiration, which is further provoked by a tub bath of mineral water of short duration. Then the patient is ushered into the rest room of lower temperature and reclines again on a cot, wrapped in a blanket, and gradually cools down ready to go to his private room. Here he relaxes thirty to sixty minutes before dressing.

This treatment is essentially one of elimination and rest. Nowhere can more ideal natural and artificial conditions favoring rest be found at one resort than here.

The mineral waters and diet are prescribed after examination. This institution, however, has always strenuously opposed fads or one-sidedness in treatment. We have no heaven-born panacea or surgical specialties to catch the unwary or foist upon the unduly alarmed. At the proper time suitable cases are further advanced in their progress by massage, passive movements, electricity, etc. When possible we avoid the use of all medication, aiming thereby to rest the stomach for proper nourishment.

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ALLOSAN

Dr. A. S. Dawson describes Allosan as an ideal remedy. It is given in three daily doses of 15 grains each, either alone or in combination with injections of protargol or other astringent or antibacterial substances. Allosan, being uninjurious and easy to take, represents a decided advance in gonorrhea treatment and places the old-time copaiba and sandalwood oil preparations completely in the shade. Dawson employed Allosan extensively in irritation of the bladder, prostate and urethra, strangury, tenesmus, etc., principally in cases of old standing. Given in doses of 2 to 7½ grain tablets, three to four times daily for some weeks, the effects were always favorable, improvement being conspicuous in many cases, especially in the beginning of the illness. The handy form of these tablets, their tastelessness and odorlessness, are great advantages which enable the patient to carry the remedy about with him and follow the treatment without anyone being the wiser; whilst the prescription of an obtrusive copaiba mixture, sandalwood oil capsules, etc., frequently enough cause a patient to refrain from taking his medicine. It is, therefore, not astonishing that Allosan has found a large number of adherents. The histories of cases given prove that the results of Allosan administration in powder or tablet form are extremely satisfactory, and of the high therapeutic value of this new santalol derivate there can be no doubt, either as regards acute or chronic urethritis (the latter with or without the complications of prostatitis, cystitis or chronic inflammation of the urinary tract). Allosan diminishes the secretion, strangury and tenesmus, and its continued use leads, in the majority of cases, to improvement and complete cure.—*The Hospital*, 1911, No. 239.

NOTE ON A CASE OF MUMPS

BY F. DE HAVILLAND HALL, M.D. LOND., F.R.C.P. LOND.
Senior Physician to Westminster Hospital.

The patient, aged 19 years, first experienced symptoms of mumps on the evening of March 7th. The left parotid only was affected at first, but according to the patient's account there was some swelling beneath the angles of both jaws later on, so that the submaxillary glands were evidently attacked. On the 10th he felt nearly well, and on the 14th he was declared convalescent. On the 16th he played golf (36 holes). Next day he felt rather indisposed, but on the 18th he was quite well again. On the 20th he rode from Oxford to London on a motor cycle. On the 21st he had very slight pain in the left testicle. On the 22nd there was very definite swelling and great tenderness, but very little actual pain. His pulse was 100 per minute, and the temperature was 102° F. On the 23rd the temperature remained all day between 102° and 103°. On the morning of the 24th the temperature fell to 99.2°, but by 7 p.m. it rose to 104°; at 9 p.m. it was 103.6°. It then steadily fell until it reached 98.2° at 8 p.m. on the 25th. There was a rise to 99° on the 26th, but after this the temperature was subnormal for some days. The

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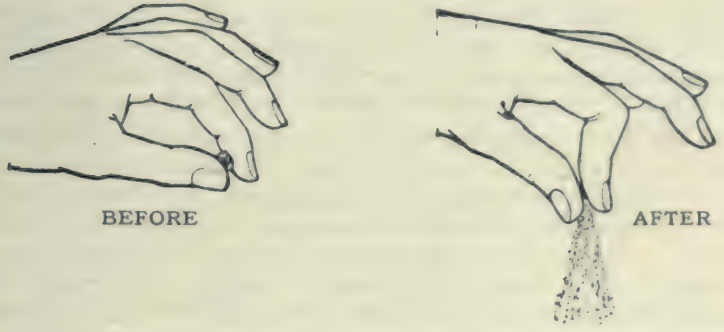

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patient was kept in bed on a light diet. Ten grains of acetylsalicylic acid were given every four hours, and the glycerine of belladonna was constantly applied to the swollen testicle.

There are several points of interest in this case. In the first place, was the testicular affection due to the patient's cycle ride? I am of opinion that it was. The next point to be noted is the date of its occurrence—viz., 14 days from the commencement of the attack of mumps and seven days after the patient had been pronounced convalescent. According to Dr. Clement Dukes the days on which orchitis showed itself in an epidemic he reported varied between the third and eighth days, so that in the case under consideration the orchitis came on later than usual. He reported five cases in which only one parotid was affected, and the orchitis was on the corresponding side. This sequence of events occurred in the present case, so that it would seem to be a rule that if unilateral parotitis is accompanied by orchitis the two affections should be on the same side of the body. Why this should be so I am not prepared to state. Another point worthy of attention is the high temperature the patient had. I have seen cases with higher temperature, but then they were accompanied by excessive pain in the testicle; whereas the patient whose case we are considering had very little pain, though great tenderness. The question arose as to whether the testicular affection had rendered the patient infectious again. I replied in the affirmative, but I have no facts to support this view. Lastly, I think there can be no doubt that the combination of acetylsalicylic acid internally and extract of belladonna externally was very effective in relief of pain and promoting the general well-being of the patient.

THE HAY-FEVER RIDDLE

Despite the many therapeutic advances of recent years, "what to do for the hay-fever patient" continues to be something of a puzzle. The long-sought specific still eludes us. Nevertheless, the malady is not quite the enigma that it once was. Medication, if still empiric, is not ineffective. The symptoms of the disorder can be controlled or minimized; relief, though temporary in many cases, may be obtained; and for these blessings the afflicted patient and the sympathetic physician may well be thankful.

For use in the treatment of hay fever there is, of course, a long line of so-called available medicaments. One dependable agent which comes naturally to mind in this connection is Adrenalin. Indeed, it is doubtful if any other single medicinal substance has been so largely and successfully employed in the treatment of vasomotor rhinitis. As adapted to the needs of the hay-fever sufferer the product is available in a number of convenient forms, as Adrenalin Chloride Solution, Adrenalin Inhalant, Anesthone Cream, Anesthone Inhalant, Anesthone Tape, etc. The various solutions are used in spraying the nares and pharynx, the cream for snuffing into the nostrils, the tape for packing the nostrils. All cases of hay fever, of course, are not amenable to the same form of treatment. It is a logical presumption, however, that a vast majority of them ought to yield to one or more of the preparations above referred to. The Adrenalin products, as is well known to most physicians,

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are manufactured by Parke, Davis & Co., who will doubtless be glad to send literature regarding them to any practitioner. Requests for printed matter may be addressed to the company at its offices and laboratories in Walkerville, Ont.

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CANADIAN physicians, who so frequently visit New York City in the autumn and winter, should remember that the Holland House, at 5th Ave. and Thirtieth St., is particularly convenient as to location. The Holland is midway uptown, being close to the New York Post-Graduate Hospital, New York Polyclinic and other institutions that make a specialty of post-graduate work. The Holland is one of the most modern hotels in the State of New York, a great deal of money having been spent upon it of recent years. The service is the best, everyone connected with the hotel being most courteous and obliging. The management of this journal takes pleasure in recommending the Holland House to all physicians.

A REMARKABLE MILK TEST

IT will be a source of gratification to the medical profession to know that Erindale Farm Dairy is putting out a milk that is, as nearly as possible, free from bacteria. The last certificate issued to the proprietors, Messrs. S. Price & Sons, shows that an examination of their milk contained no bacteria, a result that is phenomenal. It is little wonder that Price's Dairy is receiving the indorsement of the medical profession generally, owing to the excessive care used in the production of their milk. During the nice weather it would be well for those interested in the matter of a pure supply to take a run out to Erindale Farm, which is close to Toronto, and see how scrupulously clean everything about the Dairy is kept.

THE EFFECTIVE TREATMENT OF CONSTIPATION

Gradually the profession are beginning to realize that Prunoids offer the ideal treatment for all forms of constipation traceable to functional causes.

They preclude their results by stimulating normal secretions, rapidly increasing the fluid content of the feces and gently increasing peristalsis. They are extremely palatable, easily taken by even young children, and when brought in contact with the secretions rapidly disintegrate and produce their specific medicinal effect.

Probably the most gratifying feature of Prunoids is, what for lack of a better term may be called their remote effect. While prompt and decided catharsis follows their administration in six or eight hours, a mild and salutary laxative influence is observed for several days after the final dose of Prunoids. Other cathartic measures act just the reverse, and after their use the bowels invariably show greater lethargy and sluggishness.

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Editorials

TRANSMISSION OF TYPHOID FEVER BY THE AGENCY OF DOMESTIC FLIES

A striking proof of the transmission of typhoid fever by the agency of domestic flies is reported by Dr. E. W. Cochrane (*Journal of the Royal Army Medical Corps,* 1912, No. 3). A small epidemic of typhoid fever broke out in the families of two officers, who were living in one of the Bermuda Islands—children, domestic servants and orderlies were successively attacked by the disease. At first the origin of the outbreak was ascribed to defective drinking water, but this explanation could not be accepted, for the water supplies were derived from different sources. Contamination of the milk supply was likewise offered and rejected, as each of the families had a milch cow. Further investigation showed that two cases of typhoid fever had appeared in a neighboring house some time prior to the outbreak referred to here.

Owing to the direction of the prevailing winds, it was thought likely that the infection might have been carried by flies from the infected houses. Several flies, caught in the kitchens of the infected houses, or in the sleeping quarters of the orderlies, were submitted to bacteriological examination. Dr. Cochrane discovered the bacilli of Eberth in the integuments of these flies, so that this proof being convincing there was no longer any doubt as to the origin of the typhoid epidemic. This had been caused by domestic flies, which had gathered the typhoid germs in the latrines of the contaminated houses and carried them to the families of the two officers. After the latrines had been disinfected the epidemic came to an end.

J. J. C.

THE INDICATIONS FOR PURGATION BY THE SUBCUTANEOUS METHOD

In an extremely interesting article, Dr. Paul Carnot discusses, in all its phases, the question of using purgatives by the subcutaneous route. (*Paris Médical,* 29 Juin, p. 101.)

In reference to the indications for this method, he thinks it should be reserved for cases which may derive special benefit from its use. The first indication for it is furnished, when, for any reason, the digestive route cannot be utilized for purgation. Incessant vomiting prevents the use of purgatives per os, and Dr. Carnot has successfully employed purgatives, by the subcutaneous route, in cases of lead colic,

when purgatives administered by the digestive route could not be tolerated. In other cases the mental condition of a patient may prevent the swallowing of a purgative (voluntary poisoning, coma, etc.) and, in such cases, the subcutaneous administration of a purgative is equally serviceable with the subcutaneous administration of an emetic, in producing the required elimination, without any participation on the part of the patient.

A second indication is furnished by cases in which small doses should be used—doses which, while sufficient for the subcutaneous method, would be insufficient if given per os. There are many cases, in which one would willingly avoid the use of the massive doses of purgatives which are necessary when the medicines are given by the gastric route. These heavy doses may injure the mucosa, cause edema, retention of the chlorides, etc. Besides, direct contact of a purgative with a lesion of the digestive tract may prove injurious. When a practitioner is treating organic lesions (particularly lesions of the digestive tract) the lessening of the dose of a purgative and the prevention of a direct contact of the purgative with the lesion are notable advantages obtained by the subcutaneous method of purgation. For instance, in gastric ulcer, appendicitis, gastro-intestinal neoplasm, these advantages are, by no means, negligible.

A third indication for subcutaneous purgation is the continuity of action, which it exhibits in cases of chronic constipation, particularly if the digestive tract has previously been fatigued by the constant use

of all kinds of laxatives. The special indications of any purgative, given subcutaneously, depend, on the other hand, on its elective action in some anatomical element of the intestine or on some segment of the digestive tubes. For instance, when the constipation appears to be dependent on a spasmodic contraction of the intestine, recourse should be had to purgatives, which dilate the intestine, and Dr. Carnot has found that the subcutaneous use of sulphate of magnesium is useful in such cases, viz., in lead colic, in which it relaxes the spasm of the intestine, while simultaneously provoking a purgative effect.

If, contrariwise, the constipation is of an atonic character, due to a post-operative, post-chloroformic paralysis of the intestine, recourse should be had to the subcutaneous injection of sulphate of sodium, senna, hormone, cascara, etc., which rouse contractions in the atonic or tired intestine. In cases of constipation, affecting the colon, cecum, sigmoid flexure, or rectum, senna or sulphate of sodium are useful, as they act as laxatives in the large intestine.

When a laxative effect on the small intestine is desired, the same agents may be used, or others may be tried, viz., peristaltic hormone, cascara, rhubarb, which appear to act specially on the small intestine. Dr. Carnot uses in practice solutions of sulphate of magnesium or sulphate of sodium, of the strength of one in one hundred, the dose of either being 2 to 20 cubic centimetres. He uses also solutions of the strength of one in ten, injecting 1 to 3 cubic centimetres, if a stronger effect is desired.

Subcutaneous solutions of salines are more easily absorbed and cause less local edema, if they are dilute and approach to the isotonic condition. Dr. Carnot also employs an infusion of senna, sterilized in the autoclave, of the strength of one in twenty (dose one cubic centimetre) or an infusion of senna, of a strength of one in a hundred (dose five cubic centimetres). Similarly with cascara or rhamnus frangula. The extract of rhamnus purshiana also gives good results. When using phenol phthalein, in order to get a solution of the product, a sodium carbonate solution should be used, with the minimum quantity of sodium necessary. The peristaltic hormone of Zuelzer and Dhorn is also used for purgative purposes, subcutaneously, or even intravenously, in doses of from 10 to 20 cubic centimetres. J. J. C.

TO COOL THE AIR IN A HOUSE

WEATHER conditions in Canada, for those who work out of doors in July, are severe and sometimes perilous to health. Similarly, in July, indoor workers suffer from a depression of the vital powers, the result of exposure to excessive heat. Heat stroke may manifest itself as acute meningitis (rare), heat exhaustion (common), and as true sunstroke.

Speaking generally, one may say that the heat felt, on a warm day, in the rooms of a house situated above the ground level, is solar heat reflected from the earth itself, or from surfaces warmed by the sun. Recently,

a comparison of physical conditions (heat, moisture), observed in different rooms of the same dwelling, on the same day, gave an insight into the circumstances which make for comfort, indoors, on a hot day.

On July 10th last, 1 p.m., the external temperature at Toronto was 90° in the shade. On the same day, at the same hour, in an office at Toronto, situated on the ground floor of a dwelling, one window and a door being open, the temperature was 87°. The readings of the thermometer were:—

D.B.	W.B.	R.H.
87° F.	77.5° F.	59.5%.

At 1.30 p.m. on the same day, the weather conditions being unchanged, the same thermometer, transferred to a basement room just beneath the office, of a similar size, showed the following readings:—

D.B.	W.B.	R.H.
80° F.	74° F.	71°%.

Both rooms were provided with fireplaces. A marked difference between the conditions of the two rooms was that a window in the office was open—in the basement the window was closed. Fresh superheated air poured into the office, making it quite too hot for comfort, although the ventilation was good. The heated air was excluded from the basement room, but no stuffy feeling was noticed there, the ventilation being excellent. Streamers of paper, tacked over the fireplace flue, were drawn into the flue, showing that heated air was escaping by that route.

The relative humidity of the air in the office was

59.5%. The feeling of discomfort experienced there seems to have been due to the fact that the air entering by the open window was overheated, and, though fresh, deficient in moisture—much like air escaping from a warm-air furnace.

The comfortable feeling experienced on that hot day in the basement room, was due to the following conditions. The heat shown by the dry bulb thermometer, 80° F., was not excessive—the wet bulb temperature, 74° F., showed the presence of a considerable amount of moisture in the air, and the relative humidity, 71° per cent. was almost perfect. The hot air of summer descending to the basement through an open side door, which communicated with the upper part of the house, had parted with some of its heat to the walls of the building, before entering the basement room, and, afterwards, much of its heat became latent in the damp basement, the plain result being a fall of seven degrees of temperature, as compared with the air in the room just above it.

Fresh air is, of course, necessary for life and health, but, in hot weather, air in rooms should be cooled. A simple way of doing it is to draw the hot air downwards, through an open window on an upper floor, towards a ventilated basement room, from which outside air is excluded. A more expensive method would be to draw the overheated air downwards through an inlet, making it flow over blocks of ice, before it is allowed to enter a closed room at a lower level, from which it ultimately escapes upwards through an open flue. J. J. C.

DRINKING AND SMOKING IN CANADA

THROUGH the courtesy of Mr. Wm. Himsworth, Acting Deputy Minister of the Department of Inland Revenue, Ottawa, we are enabled to publish the figures showing the per capita consumption in Canada of spirits, beer, wine and tobacco, for the fiscal year ended 31st March, 1912. The estimated population of Canada for that year, founded on the census of 1911, was 7,423,000.

The quantities consumed were as follows:—

Spirits—7,646,834 gals.=1.030 per cap.
Beer—48,978,394 gals.=6.598 per cap.
Wine— 850,017 gals.= .114 per cap.
Tobacco—27,309,604 lbs.=3.679 per cap.

For the fiscal year ending 31st March, 1911, the quantities were:—

Spirits— 6,786,069 gals.
Beer—42,938,603 gals.
Wine— 819,687 gals.
Tobacco—23,790,120 lbs.

The estimated population for that year given in the official report, is 7,901,530. This is, of course, an error, the population for the ensuing fiscal year being only 7,423,000. We learn from Mr. A. Blue, Chief Officer of the Census of Canada, that the population of Canada at date of 1st June, 1911, according to the census, was 7,204,838.

Using the true figures of the population as the

divisor, we find that the real consumption of spirits, beer, wine and tobacco for the fiscal year ended March 31st, 1911, was about:—

Spirits— .941 gals. per cap.
Beer—5.959 gals. per cap.
Wine— .112 gals per cap.
Tobacco—3.302 lbs. per cap.

On comparing the per capita consumption, in Canada, of these luxuries, during 1911 and 1912, a steady increase is observed. It is worth noting, also, that the excise revenue for the first three months of the current year shows an increase. The inferences from these data would be that money is circulating freely, and that Canadians are indulging in luxuries.

J. J. C.

THE NEW HEALTH REGULATIONS

We append herewith a synopsis of the new health regulations recently promulgated by the Provincial Government, and in which medical practitioners are keenly interested. The regulations are as follows:

"Compulsory notification in all cases of tuberculosis within twelve hours of diagnosis.

Doctor must make weekly reports upon each case of tuberculosis to the Board of Health.

Each municipality must keep a map on which shall be marked each case of tuberculosis.

Province will provide free pamphlets on treatment of tuberculosis to each patient.

Patient may be ordered to be removed to a sanitarium or hospital, kept there until the health officer considers removal safe. Expense of treatment to be borne by the municipality in cases of indigent patients.

Tubercular patients must notify health authorities of change of residence.

All buildings which have been occupied by tubercular patients must be disinfected after their removal at the expense of the municipality.

Bodies of those dying of communicable diseases cannot be moved by rail except when wound in a disinfecting sheet, and enclosed in sealed coffins. These coffins may not be reopened and must bear the permit of the health officer.

Bodies of those dying of communicable diseases cannot be disinterred except on the order of the Attorney-General.

Measles are to be placarded.

The period of quarantine for scarlet fever is increased from five to six weeks.

Local medical health officers must keep maps of each municipality showing the location of each case of typhoid fever.

The Provincial Board of Health may appoint extra men to enforce the regulations governing smallpox.

Vessels coming from infected ports may be inspected.

Special medical inspectors may be appointed to

board all such boats and trains, and order all passengers to be vaccinated before they disembark.

Vaccination is made compulsory. "Where the Medical Health Officer thinks there is danger," he can order anyone to be vaccinated.

Proclamation or advertisement of such decision by the health authorities is sufficient to render anyone who is not vaccinated in seven days liable to a penalty. Any member of a municipal council who does not comply is subject to a fine of $25.

The air space for each individual in camps in unorganized districts is increased from 500 to 600 cubic feet.

No meat slaughtered in the municipal abattoirs can be sold without the stamp of the local inspector."

We heartily endorse the regulation now making vaccination compulsory. This is a move in the right direction, and we hope it will give a permanent quietus to those idiots who compose what is known as The Anti-Vaccination Society.

The regulation regarding the sale of meat that does not bear the stamp of the local inspector is something that is needed in every city.

We do not, however, see eye to eye with those who framed the new regulation forcing doctors to make a weekly report upon each case of tuberculosis to the Board of Health. A report *once every three months* would be ample.

The placarding of cases of measles and increasing the period of quarantine for scarlet fever to six weeks

will relieve our Isolation Hospitals of the care of a lot of cases that are overcrowding the wards now.

Compulsory notification in tuberculosis is absolutely right and though it does not mean any undue publicity to the patient or his or her family, it means a great deal to the Medical Health Officer in assisting him in keeping track of the disease, looking after disinfection of the premises and preventing the spreading of the White Plague which is causing such an annual death rate throughout the Dominion.

W. A. Y.

Canadian Journal of Medicine and Surgery

Editor:

J. J. Cassidy, M.D.

45 Bloor St. E., Toronto

Managing Editor:

W. A. Young, M.D., L.R.C.P., Lond.

145 College St., Toronto

Surgery:

N. A. Powell, M.D., C.M., Professor of Medical Jurisprudence, Toronto University; Senior Assistant in charge, Emergency Department, Toronto General Hospital; J. F. W. Ross, M.D., Professor of Gynecology, University of Toronto; Gynecologist, Toronto General Hospital.

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Nose, Throat and Ear:

Perry G. Goldsmith, M.D., 84 Carlton St., Toronto, Laryngologist and Aurist, Provincial Institution for the Deaf and Dumb; Senior Assistant Ear, Nose and Throat Department, Toronto General Hospital.

Dermatology:

D. King Smith, M.B., Tor., Toronto; Demonstrator in Pathology, Toronto General Hospital.

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Original Contributions

SYMPTOMS AND DIAGNOSIS OF EXTRA-UTERINE PREGNANCY*

BY A. BELCHAM KEYES, M.D.

Professor of Gynecology, Chicago Polyclinic; Assistant Professor of Gynecology, Rush Medical College in affiliation with the University of Chicago; Gynecologist to the Presbyterian, Polyclinic, Evangelical Deaconess, and Maternity Hospitals, and Surgeon to Cook County Hospital, Chicago, and Reserve Corps, U. S. Army.

In pregnancy it is the whole woman who is pregnant, as is evidenced by the physiologic changes that occur in every organ, extra-genital as well as genital, supra-diaphragmatic, infra-diaphragmatic, and pelvic, as well as in the blood itself.

These changes are the same with but very slight differences whether the pregnancy be intra or extra-uterine.

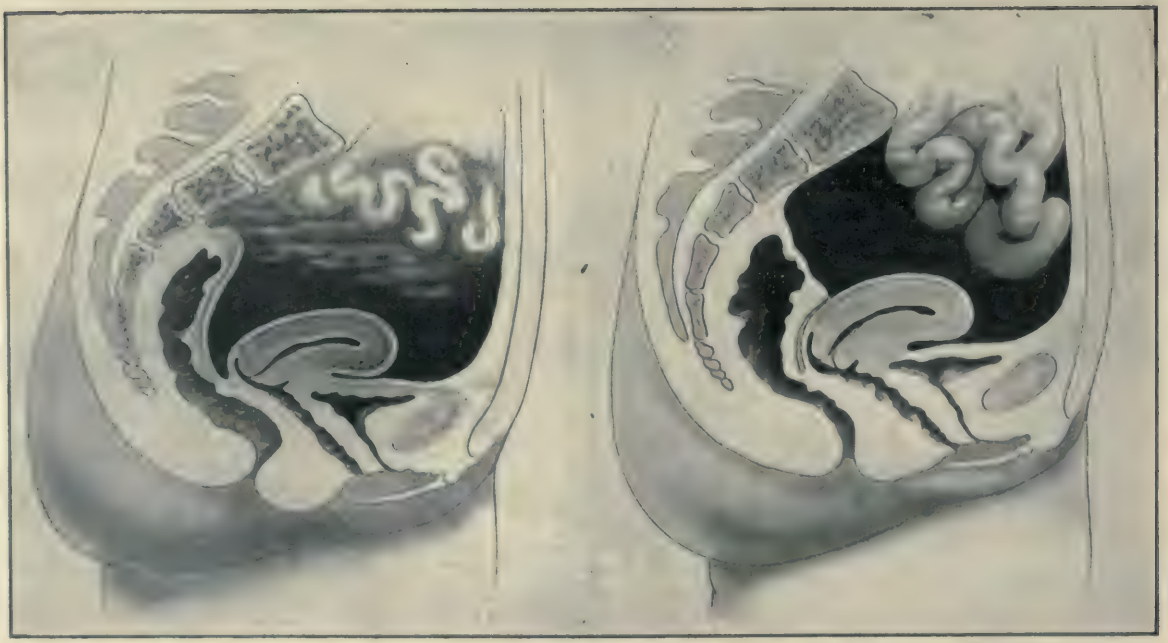
The uterus is only the normal conception, abiding, nourishing and developing place of the embryo for the first forty weeks after impregnation of the ovum, and clinical experience teaches us that the Fallopian tube, being Muellerian tissue, usurps this function most often.

Even in extra-uterine pregnancy the "empty uterus" itself produces a false decidua, often of great thickness, and undergoes muscular changes, though to a less degree than in normal intra-uterine pregnancy, but is otherwise empty, yet it frequently performs the act of the " false abortion."

The symptoms and signs (presumptive and probable) of extra-uterine pregnancy are the same as those of normal intra-uterine pregnancy.

This being the case, *it should be the rule of every practitioner, in his care of pregnancy, first, to diagnose early, whether it is an intra-uterine or an extra-uterine pregnancy;* no matter whether the patient be nulli, uni or multipara, just as much as it is to ascertain if a pelvic contraction, or uterine retro-version

* Written specially for *The Canadian Journal of Medicine and Surgery.*



Un-Circumscribed Hemorrhage.

Circumscribed Hematocele (3rd degree). In this type the Uterus is markedly ante or retro-verted but never ante-posited.

with danger of incarceration under the promontory, or a tumor, or nephritis, or other pathologic condition be present demanding prophylactic measures in the interests of the prospective mother's life.

There are, however, certain deviations in the usual subjective symptoms of extra-uterine pregnancy given by authors as of value, which, according to the writer's experience, are of but very slight, if any, assistance in arriving at a diagnosis.

Winckel points out that in extra-uterine pregnancy the nervous manifestations are more liable to be exaggerated, *e.g.*:

Vomiting is said to be more troublesome and may even be uncontrollable; also peritonitic colic pains may occur, due to the often present old circumscribed peri-metritis, and dragging of adhesions; and Freund also mentions diarrhea, occasionally of a dysenteric type, or with rectal and even vesical tenesmus if the adhesions implicate the rectum or bladder; but the typical ischuria, as in the incarcerated retro-flexed gravid uterus, does not occur, according to Winckel.

Another point of very doubtful differential value is that the rapidly-growing ectopic fetus, plus the increase in size of the "*empty*" uterus, occasionally fill the true pelvis sooner and cause the rising of the uterus above the pubes to be somewhat earlier than in intra-uterine pregnancy.

Vaginal Examination.

The "bi-manual" should be performed with the patient in the dorsal buttocks position, with the thighs as vertical as possible, and the chin well flexed on the sternum, either on a table or crosswise of the bed, so necessary is it to be able to lower the elbow to the utmost to outline the uterus and adnexæ intelligently.

(For an attendant to place the fists under the sacrum, thereby raising the pelvis, has been found by the writer of great advantage in lengthwise-bed examinations.)

(*a*) Lividity of the vagina (Jacquemin-Chadwick sign) increasing toward the portio vaginalis may be more marked.

(*b*) The uterine arteries are said to pulsate more distinctly to palpation in the lateral fornices of the vagina.

(*c*) Antero-lateral or anterior displacement of the enlarged and softened uterus in pregnancy is very suspicious. Extra

care should be taken to palpate for any possible laterally situated enlargement as a cause of this displacement.

A soft, growing unruptured ectopic sac by the side of the uterus is very difficult to palpate in the early weeks, while the harder tubal mole, even though not nearly as large, may be very easily felt. (The possibility of, *e.g.*, a concomitant ovarian or parovarian cyst, cystoma, or cystic fibroma with intra-uterine pregnancy must always be borne in mind.

(*d*) A volsella on the cervix may aid in outlining the ectopic sac by the side of the artificially prolapsed uterus, but any roughness may easily precipitate rupture. Doran reported tubal pregnancy lying anterior to the uterus.

(*e*) The sound finding the uterus empty and the walls thick, is a questionable statement.

Folds of the mucosa may hinder the introduction of the sound and render measurement inaccurate and lead to error.

The uterus may even appear empty for its entire length to the sound up till the end of the second month in a laterally situated intra-uterine pregnancy. The sound may cause uterine contractions if the false decidua is still in utero (Winckel), and also render liable rupture of the extra-uterine pregnancy (Freund and Bandl).

(*f*) The curette would, if the false decidua be not yet expelled, naturally reveal the fact of the presence of decidual cells in the uterus, and decidual cells are a sign of pregnancy, and the absence of chorionic villi would point to it being extra-uterine; but curettage, like sounding, as a diagnostic procedure is to be absolutely proscribed.

A woman suspected of extra-uterine pregnancy should be placed under close observation in the hospital, if possible. Repeated examinations bi-manually a few days apart usually result in a correct diagnosis. If the patient has an extra-uterine conception every preparation should be made for immediate laparotomy, for hemorrhage internally may suddenly set in at any moment.

The False Abortion *v.* the True Abortion.

The false abortion is characterized by:

1. Abortion-like pains.
2. The expulsion of the false decidua due to uterine con-

tractions, and hemorrhage from the uterus. This usually occurs within the first four months of extra-uterine pregnancy, whether the extra-uterine fetus survives or not (Winckel).

Its constancy in all cases is not proven (Opitz, Schmidt), at least in the cases of very early rupture.

The false decidua of an extra-uterine pregnancy is often much thicker than the decidua of an intra-uterine pregnancy, and microscopically is composed of a stratum compactum and a stratum granulosum as in intra-uterine pregnancy.

It forms a cast of the intrauterine surface, shaggy on its uterine surface and smooth on its free surface.

It may be expelled in pieces or whole and intact, so that when spread out the openings at the tubal angles and internal os are easily recognized.

(Dysmenorrhea membranacea or exfoliativa, in which a decidua-like structure is cast out during menstruation, with pains often of an abortion-like character, is doubtless in some cases in reality the decidua of a very early true abortion, or, indeed, the false decidua of a false abortion in extra-uterine pregnancy in which the shock and hemorrhage of rupture if occurred were but slight.)

3. The metrorrhagia, plus the abortion-like pains of the false abortion, is very often mistaken by both laity and midwife, for a true abortion, the false decidua and clots being mistaken for the product of conception.

The increased frequency of the pulse, anemia and shock due to the rupture of the ectopic sac, and concealed hemorrhage, if not marked, may easily be entirely attributed to the uterine pains and visible uterine hemorrhage, which, indeed, may be profuse, and the ectopic gestation remain unsuspected.

The cause of the profuse and often prolonged metrorrhagia in false abortion have been variously stated as due to the congestion of the uterus, the anterior position of the uterus, and blood from the tube lumen flowing through the tubal ostium into the uterus and thence from the uterus, giving the impression that it is of uterine origin.

4. A long-continued, perhaps slight, metrorrhagia, often of a dark appearance, lasting for weeks after an apparently true

abortion, is one of the peculiar sequelæ of very early ruptured extra-uterine pregnancy.

It is no uncommon thing for such cases to have been repeatedly curetted to remove supposedly retained secundines, as a cause of the continued bleeding, or, indeed, hysterectomy performed for suspected submucous fibroid.

In three cases of this kind recently operated by the writer in his services at the Presbyterian, Henrotin Memorial, and Cook County Hospitals, the women even positively denied pregnancy and abortion, because their periods, as so often happens, had been very irregular since the birth of their last child five to fifteen years ago.

A menorrhagia had gradually merged into a metrorrhagia lasting till the operation, a period of five to twelve weeks.

A careful bi-manual examination revealed a rather soft, painless lateral enlargement on the side of the uterus. Pulsation of the uterine vessels was not particularly marked. The uterus was small and retro-flexed in one, and in "near" normal anteversion in the others.

The only symptom complained of, besides the uterine hemorrhage, was a peculiar faintness on attempting to sit up or rise from the bed. The patients were not markedly anemic, and pulse frequency only from 100 to 130. Faintness as a symptom I heard first emphasized as important by Dr. Chas. Sumner Bacon, of Chicago, and have many times since proved its value.

The diagnoses of extra-uterine pregnancy were confirmed at the laparotomy. The microscope revealed the chorionic villi in the tube wall sections.

In every case of abortion the differentiation should be carefully made bi-manually as to whether it is a true abortion from an intra-uterine pregnancy, or whether a false abortion of an extra-uterine pregnancy.

Diligent search in the clots by the physician for the product of conception should never be omitted.

5. Finding the product of conception is naturally diagnostic of intra-uterine, while large, thick pieces of decidua (if one is fortunate enough to find them) are very suggestive of extra-uterine pregnancy, especially in the absence of the embryo itself.

6. Finding the product of conception that has been expelled from the uterus, while proof of a true abortion, by no means excludes the possible co-existence of an extra-uterine pregnancy.

In Tieken's case, reported by the writer, the patient gave the history typically of a ruptured extra-uterine pregnancy (the intra-uterine pregnancy being entirely unsuspected and only diagnosed during the very questionable preliminary curettage of the supposedly empty uterus to remove the false decidua). One can very readily understand that had the intra-uterine product of conception been expelled first, with profuse hemorrhage, the rupture of the extra-uterine pregnancy might very easily have been overlooked and not diagnosed till much later, if at all. Fritsch in a like case removed the extra-uterine pregnancy by laparotomy and the intra-uterine pregnancy went undisturbed to term.

7. Criminal abortion attempts and death in ectopic gestation are common. The history of one case, kindly furnished me by Dr. Rudolph W. Holmes of an unmarried woman admitted in a dying condition to the Passavant Hospital, with a history of induction of abortion by the criminal introduction (by a midwife) of a sound into the uterus. The autopsy revealed a ruptured extra-uterine tubal pregnancy. A similar case of the writer's at the Polyclinic was rescued by immediate operation and the free submammary salt solution injection. Fortunately for this case there was no infection.

Retro-uterine Hematocele (Nelation).

This needs no comment on its nomenclature when we remember the natural curling backward of the tubes toward the ovaries lying on the posterior surface of the broad ligament, so that hemorrhage from the tubes is usually directly into the cul-de-sac of Douglas.

The importance of uniting the subjects as I have done can nowhere be better shown than by the Tubingen statistics, in which sixty-eight out of seventy-one ectopic pregnancies ruptured between the first and third months. Two only went to the sixth month, and one to the ninth month of tubal pregnancy.

The early rupture of the extra-uterine pregnancy being the

rule, makes the need of the most careful study of the behavior of hematocele, for it is as hematocele that we usually encounter it clinically. Noble estimated that between 3 and 4 per cent. of the laparotomies performed by him for pelvic disease revealed extra-uterine pregnancy as the cause.

The causes of early rupture of tubal pregnancy lie:

(*a*) In the anatomically thin tubal mucosa, not being so well adapted to decidual formation as the thicker endometrium. The chorionic villi, therefore, come early in contact with and dip into the tubal musculature, which becomes pressure atrophied and penetrated, in some cases, to, or even through, the serosa.

This penetration of the musculature of the tube is said to be especially early if the ovum lodges at the base of a dendritic process, i.e., *intercolumnar* in contradistinction to the *columnar*, in which the ovum finds lodgment on the summit of a dendritic process. Neither is there hyperplasia and hypertrophy of the tubal musculature to keep pace with the growth of the enlarging ovum, as does the uterus in the first half of pregnancy intra-uterine.

Worth's statement that the product of conception not only imbeds itself in the tube, but digs its grave also in the tubal wall, is not without some truth; indeed, it often digs a hole through it.

In one case of the writer's the microscope shows a condition of trophoblastic proliferation which gives the tube wall the appearance of being eaten through by trophoblasts.

(*b*) The increased blood pressure of pregnancy in the intervillous spaces and large maternal vessels, the walls of which have also suffered pressure atrophy and often even penetration by the chorionic villi within the weakened tube also invites rupture.

Some authorities mention increased intra-abdominal pressure also, but in this the real factor is probably the increase in blood pressure.

Rupture of the tube is divided into (*a*) internal rupture, and (*b*) external rupture, (*c*) concomitant internal and external rupture, (*d*) intra-ligamentous rupture.

(*a*) *The internal rupture of the capsule, often with tubal abortus, admits of four subdivisions;*

(1) *Internal capsule rupture without hematocele,* 33 per cent. (Doederlein). It is quite conceivable that the tubal wall may often be much more resistant than the internal capsule which ruptures with intramural tubal hemorrhage, and also perhaps with slight hemorrhage into the tube lumen, which coagulates and forms *tubal mole without hematocele.*

This probably accounts for many of the hematosalpinges that were formerly considered of inflammatory origin.

In inflammations the hematosalpinx is usually closed at the fimbriated extremity by adhesions, but in ectopic gestation it is often still open, but may have become closed after tubal conception took place.

(2) As the pressure of the intra-tubal-lumen hemorrhage is usually too great to remain entirely within the tube, the fimbriated extremity of which may still be patent in early pregnancy, it may flow in the direction of least resistance, toward and out of the fimbriated extremity, and may collect there as a clot (*hematocele peri-tubaire*).

(3) More frequently the hemorrhage is profuse and flows down into and more or less fills the Douglas sac (*retro-uterine hematocele*).

The formation of more or less hematocele occurred in about 63 per cent of Doederlein's cases. The product of conception may also be expelled in part or wholly; incomplete or complete (*Retro-uterine hematocele with tubal abortion*).

(4) In rare cases Douglas' sac has been previously obliterated by adhesions and the blood collects anterior to the uterus, in the vesico-uterine cul-de-sac, giving rise to the term (*hematocele ante-uterina*).

(*b*) *The external rupture of the capsule:*

(1) Intra-abdominal external rupture, *i.e.,* rupture entirely through all the coats of the tubal wall and subserous hematomata occur, or rupture through the peritoneum also, with hemorrhage into Douglas' cul-de-sac (*retro-uterine hematocele*).

This is especially fatal, because of the often very copious hemorrhage even from a very small rupture opening.

Fortunately the more dangerous external rupture occurs in only about 3.7 per cent. of cases (Doederlein).

The product of conception may be expelled through the external rupture opening, but more often through the fimbriated extremity because of

(*c*) *Concomitant* internal rupture occurring also.

(*d*) *Rupture intra-ligamentous.* When we think of the two layers composing the ala-vespertilionis of the broad ligament, we can readily understand that rupture of a tubal pregnancy might easily occur through the inferior surface of the tube and intra-ligamentous hemorrhage occur, which with the increased looseness of the parametric tissues in pregnancy, easily allows of a separation of the leaves of the broad ligament and the formation of a large hematoma.

Loschge as early as 1818 reported pregnancy between the leaves of the broad ligament, and Lawson Tait, probably meeting a number of such cases, made the much-derided statement that all extra-uterine pregnancies of the fourth month were intra-ligamentous.

If rare, intra-ligamentous rupture may also occur in very early cases (Kuhn).

An interesting case of this, is of interest to mention here, was recently published by Allabin, of Illinois, microscopic proof of its early ectopic gestation origin by Herzog.

We must always bear in mind that the penetration of the tube wall and the mother's vessels by the growing chorionic villi may still continue after the first hemorrhage has ceased, so that repeated vessel rupture and repeated hemorrhages can occur, causing what is entirely an intratubal hematoma to-day to be perhaps an enormous hematocele to-morrow.

(*e*) Lastly, the possible combination of retro-uterine hematocele and intra-ligamentous hematoma must also be thought of.

Retro-uterine hematocele differ theoretically according to area:

(1) Where there is a previous walling off or roofing by old perimetric, omental and intestinal adhesions, forming a roof over Douglas' cul-de-sac; the hemorrhage in this case would be into a pre-formed circumscribed space, pressing the uterus for-

ward and forming a tense but limited hematocele (Schroeder).

(2) Where Douglas' sac is not previously roofed in by adhesions (Winckel). The writer has never yet seen an absolutely circumscribed case.

If the rupture is small in area, hemorrhage might be easily understood to be slow and invite early adhesions—circumscription, due to the irritant character of the mixed hematocele blood, chorionic epithelium, tubal epithelium and trophoblasts, plus the lowered blood pressure.

The new elastic adhesions would easily allow of a more marked anteposition of the uterus taking place if a recurrence of the hemorrhage should now occur.

Again, if the primary hemorrhage be from one or more large vessels, such a hemorrhage may easily be enough to fill the whole pelvis (true and false), and even the greater part of the abdominal cavity, and death occur before any adhesions form.

The often long, great omentum has, in the author's opinion, been the salvation of the patient in many of the cases which have come under his observation, its rapid increase in weight (infiltration) and proneness to adhesions making a complete roof with the (floating) intestines bridging between parietal peritoneum posteriorly, laterally and anteriorly.

The three theoretically accepted places of limitation of the hemorrhage by adhesions are:

(*a*) Between the posterior parietal peritoneum and the fundus uteri (first degree).

(*b*) Between the posterior parietal peritoneum and the bladder (second degree).

(*c*) Between some point on the posterior parietal peritoneum and the anterior parietal peritoneum (third degree).

These arbitrary divisions in the past have given *a false feeling of security to the practitioner;* have justified him in stimulating patients when in a condition of exsanguination and shock, and invited delay of the proper operative measures; and have permitted such bare questions as how much intra-peritoneal hemorrhage is sufficient to cause death, and waiting for the patient to improve before operating.

SYMPTOMS AND DIAGNOSIS OF HEMATOCELE RETRO-UTERINA.

The anamnesis is very important.

(*a*) Pregnancy may or may not have been known or suspected.

(*b*) Amenorrhea was present in only 50 per cent. of Robb's cases and was the rule in Hain and Lederer's.

Amenorrhea for one or two periods can occur in a woman previously irregular without exciting in her any suspicion of pregnancy, especially in a married woman who has not become pregnant for many years and who has long considered herself sterile.

Menstruation may have occurred regularly, *e.g.*, pregnancy may have occurred during or immediately after a period, and the woman, by the time the next period is due, be a month pregnant, and excite no suspicion of her condition either in herself or in her medical attendant.

Women frequently menstruate for the first two, and occasionally for the first three months even in intra-uterine pregnancy.

In Robb's extra-uterine cases over 35 per cent. denied missing a period.

The peculiarly sudden onset of the subjective symptoms is characteristic of hematocele.

(*c*) Sudden spontaneous pain and tenderness in either the inguinal or the hypogastric region, or diffusely or even epigastric, often falsely attributed to trauma, jumping from a height, or lifting a weight. The writer has had cases rupture while in bed in the hospital. One complained of no pain, but the nurse noticing the increased frequency of the pulse reported it.

In another of the writer's cases the diagnosis was lead colic and intestinal obstruction, the patient (a metal worker) having no suspicion of her pregnancy, never having become so, though twelve years married. She claimed not to have missed a period, but admitted irregularity.

In many cases the pain may be comparatively slight, or only of a bearing-down character.

If external rupture, pain continuously increasing in severity,

and if internal rupture (abortion), then recurrent pain, are doubtful differentiating points.

(*d*) The sudden anemia, often deathly pallor, especially noticeable in the mucous membranes. The very frequent pulse, 150 to 180, small and weak, due in part to the anemia (internal hemorrhage), and in part perhaps to the shock and peritoneal irritation, is always suggestive of concealed hemorrhage, *but many cases do not show any marked pallor, neither does the pulse rate exceed* 100 *beats per minute.*

(*e*) Faintness or sudden fainting of a healthy woman, wherever it occurs, in church, on the street, or while shopping, demands a pelvic examination if there be the slightest suspicion of a possible pregnancy. One of the writer's hematocele (external rupture) cases, a primi-para, fainted in a department store. Her pulse never exceeded 98, though much blood was found in the abdominal cavity.

Unconsciousness, or even death, may occur, or the patient may rally after the first shock, or have one or more repetitions of the hemorrhage of varying severity, even after the hemorrhage has apparently ceased for weeks.

(*f*) Nausea and vomiting occur in one-fourth of the cases (Robb).

(*g*) Meteorismus and rigidity of the anterior abdominal wall, due to peritoneal irritation by the tubal blood.

This rigidity is liable to be very marked just after the hemorrhage has occurred, especially if much pain; later, when the hemorrhage is older, if uninfected, there is less rigidity, but if it becomes infected, then the rigidity is the board-hard rigidity of peritonitis; indeed, many so-called pelvic peritonitis cases that recover are in reality ruptured extra-uterine pregnancies.

It has been said that if the hemorrhage occurred into a space long since circumscribed by adhesions, that the above signs can almost entirely fail.

Certainly, if we think of the pathology, we can readily understand that in a small tubal mole or peri-tubal hematocele the symptoms of shock and exsanguination might be slight compared to those of a large retro-uterine hematocele.

(*h*) False abortion and hemorrhage and discharge of the

false decidua from the uterus may or may not have occurred or be in progress. The experience of the writer is that the patient, due to previous irregularity of the menses as to time and quantity, will fail to give any information about the so-called false abortion unless the questions are asked very pointedly.

(*i*) Vesical tenesmus, or retention, is mentioned by some.

(*j*) Constipation due to peritoneal irritation or to pressure on the rectum, which is often catarrhal in old cases, due to the inflammatory extension from the peritoneum to the proctium, may be followed by tenesmus.

(*k*) The temperature in a hematocele may be sub-normal at first; later, slight fever; if infection of the hematocele, marked fever.

The physical examination should be made both cautiously and gently if hematocele is suspected, for fear of causing recurrent hemorrhage which may be fatal. Always empty the bladder by catheter, and rectum also, if possible, by small enema.

(*a*) By inspection one may (if circumscribed and risen out of the true pelvis) be able to detect the hematoma site by the bulging of the anterior abdominal wall. The writer has often found the hematoma on the right from a ruptured left ectopic gestation, and the reverse.

(*b*) Palpation over the hematoma recognizes the increased resistance. In rare cases it extends above the pubis, usually somewhat unilateral, but may be hypogastric.

(*c*) Abdominal percussion is especially important in large, free hemorrhage or ante-uterine hematocele to outline the dull area, which outline is sharply defined against the tympanitic intestines above, and being coagulated usually does not change on change of position.

(*d*) Bi-manual examination. The tubal mole gives a more or less hard tumor attached to the uterus by a pedicle.

In hematocele, *if adhesions* have roofed in Douglas' sac, before or after hemorrhage has occurred from the end of the tube, or rupture in continuity, we find in one or both of the fornices vaginalis a soft or tense tumor, often filling the pelvis posteriorly, pressing the uterus somewhat forward on the pubis,

immediately behind which bone we may find the cervix, unless the latter be held posteriorly by adhesions.

It may give the sensation of a distended cyst with thick walls if old, or, in the more recent cases, the snowball crepitus, due to the clots. *If no adhesions* were previously present, then the blood, being free in the abdominal cavity, may easily escape notice bi-manually, and later, when adhesions have formed, or renewed hemorrhage, give the picture of hematocele more clearly. The fact that in recent cases the clots above are less firm, and the fresh blood in the cul-de-sac is fluid and very soft to the internal finger, should not be forgotten.

(*e*) Per rectum the size and spherical shape and situation of the circumscribed hematocele is said to be especially marked.

It lies distinctly retro-uterine, often, perhaps, more to one side than the other, and is apparently situated immediately on the upper part of the posterior cervix wall.

In some cases the uterus is said to be drawn up nearly out of reach, though the writer has never seen a case.

Deviations from the characteristic picture can occur if the lower part of Douglas' space is obliterated, since in these cases the blood tumor is higher up and is not easily reached by the finger in the posterior vaginal fornix.

If the whole cul-de-sac is closed, then the hemorrhage may occur into the vesico-uterine cul-de-sac (*hematocele ante-uterina*).

In these cases the bi-manual may give but little result, while the abdominal examination (which should be especially systematically made in all cases) may give valuable information.

It should be borne in mind that many hematocele cases make but little complaint after the first shock has passed, and may even resume work, only calling in medical advice if repeated hemorrhages, or the often long-continued weakness becomes very pronounced; or, indeed, never calling it at all if the symptoms are slight, they being, perhaps, accidental finds at a later laparotomy or autopsy.

Gas Building, Chicago.

ETIOLOGY AND PATHOLOGY OF EXOPHTHALMIC GOITRE*

BY W. T. CONNELL, M.D., KINGSTON.

Since the work of Mobius, 1886[1] and of Greenfield, 1893,[2] the symptoms of exophthalmic goitre have been recognized as those of hyperthyroidism, the effects of an excess of thyroid secretion beyond body requirements, either to utilize or to neutralize. The exact physiological function of the thyroid and its secretion cannot be said to be yet definitely known, but it might prove of advantage in later discussion if I should give what appears to me to be the present-status of our knowledge of the nature and action of this secretion. The normal secretion of "colloid" is formed by the epithelial cells of the thyroid alveoli and formation of this "colloid" would appear to be the sole function of the organ. Analysis of this "colloid" has shown that its main active constituent is a globulin, thyreoglobulin, whose molecule is iodine-containing or iodine-binding, the iodine portion being separable though bound to protein fraction as thyreo-iodine or iodo-thyrin. In addition to this there is present in the colloid, a nucleo-proteid body usually in small amount. It would be of no service to detail here the work of those who have investigated these active constituents. Probably on this Continent the work done by Beebe[3] and Rogers[4] is that best known as a study of these constituents, their isolation, mode of action and the principles of therapeutics based thereon. Their work goes to prove that the nucleo-proteid portion of the secretion has a markedly stimulating effect on the sympathetic system, and that repeated injections of small doses soon produce in healthy individuals, such symptoms as tachycardia, cutaneous flushing and sweating, digestive disturbances, nervous irritability and even tremor. Injections of the globulin, on the other hand, into healthy individuals, act as a general systemic stimulant, and require large doses and a longer period to produce symptoms like those following the use of nucleo-proteid. Indeed Beebe and Rogers claim that such symptoms when developed can very largely be ascribed to nucleo-proteid unsepar-

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ated from the globulin in extraction. Normally then the globulin is the main constituent, acting as an accelerator of metabolism, increasing oxidation and the metabolic activities of nitrogenous and fatty tissue, while the nucleo-proteid exerts its effects on the sympathetic system, but in normal secretion its amount and consequently its import is small.

Investigators have shown a close relationship in activities between the thyroid and other glands and tissues of body, but more especially the adrenals, pancreas and generative glands. Time prevents a discussion of such relationship, though they have a bearing on the topic under discussion, as alterations in these particular organs are, without doubt, factors of much import in the etiology of a number of cases of both simple and of exophthalmic goitres.

Undoubtedly in etiology, the simple or parenchymatous goitres and exophthalmic goitre have many factors in common. In simple goitre we find females most commonly affected, and we recognize as factors the increased demands made upon the thyroid at puberty, during pregnancy, and occasionally at the menopause. We find certain other cases follow on some of the infectious diseases, no doubt due to the action of their toxins, either on thyroid itself or on some other organ. Endemic goitre has long been associated with impurities in drinking water, the exact nature of which are unknown. McCarrison[5] has quite definitely proven this association in the endemic goitres of Gilgit in the Kashmir and proven that it is the suspended matter in the water that is at fault, but the mode of action of such material is still open to discussion. In such simple goitres the histological alterations are those of simple enlargement with retention of normal characters and with more active colloid formation, the colloid staining like that of normal gland. Now exophthalmic goitre has similar underlying factors. It affects females at least eight times as frequently as males, its age incidence is from 15 to 40, but is not so apt to occur at puberty. A history of infectious disease can be elicited in many cases. It certainly is much more common in localities where simple goitre is prevalent and in families with goitre, and we can take this last as a sign that such families have some inherited deficiency in their thyroids.

The work of Beebe and Rogers would go to show that so long as the demand for increased secretion can be met by production of a secretion of normal composition, that is, with the globulin and its normal iodine content, that there is little danger of development of an exophthalmic goitrous state, but we have only the simple or parenchymatous goitre. But with further demands the character of the secretion may alter and be evidenced by distinctive pathological alterations in the gland itself. These investigators and others have shown that extracts from the glands in exophthalmic goitre are much richer in nucleoproteids than is the normal gland, or the gland in parenchymatous goitre, and further that the colloid is frequently relatively poor in globulin, and especially in its iodine content. This would go to prove that to this alteration in the character of the secretion, the symptoms are due, as the nucleo-proteid, as has been previously pointed out, has a markedly stimulating effect on the sympathetic system, and on this effect depends the symptom complex of exophthalmic. Rogers' hypothesis is that the alteration in the gland tissue and in character of secretion is a fatigue phenomenon, its onset varying with the capacity of the thyroid cells to continue to produce a normal secretion, and also the capacity of the tissues to utilize this and neutralize any excess. He compares the process in the thyroid to the well known effect of continuous electrical stimulation of the salivary glands where at first an increased normal secretion is obtained; with fatigue a more watery secretion, gradually losing all its active constituents, but in the thyroid the stimulation is essentially less active and longer continued. Adopting this view, it would appear that exophthalmic goitre is dependent on the same factors as simple parenchymatous goitre, but develops only in those whose thyroids are not able to continue to meet the demands upon them arising as the result of metabolic, chemical or toxic irritants.

Pathology. In practically all cases there is enlargement of the organ, but as a rule not of great extent unless an adenomatous goitre be also present. At operations on such glands the surface veins are usually numerous, large and distended with blood, but this feature is not apparent after removal. The surface of the removed gland is usually firm and slightly nodular, but not markedly irregular. As a rule the enlargement affects

the whole gland, but at times one lobe, or even a portion of lobe, may be particularly involved, and in a very few cases the alterations may be confined to islands of tissue scattered throughout the gland. Considerable variations will be found in both gross and microscopic findings depending on acuteness or chronicity of case, upon any secondary degenerative lesions and upon any accompanying adenomatous growths. Those who have had large experience in the examination of thyroids can outline with fair accuracy the character of symptoms presented by a case from examination of the removed glands. Few of us here in Ontario have sufficient chance to acquire this proficiency, as none of our surgical clinics afford us much material for study.

The cut surface of a gland in acute cases is of a yellow-gray color, rather dull or opaque, due to absence of colloid in any amount, instead of the reddish, glairy surface of normal gland. If cases are of somewhat longer duration, the grayish opacity may not be so marked and glair partially reappears due to presence of colloid not absorbed, while in chronic cases the gross appearance may not show marked departure from normal, except to the eye of an expert. Microscopically there are very distinctive alterations. The alveoli in the normal gland are rounded, the lumen filled with colloid and the lining cells a single layer of cubical epithelium. In exophthalmic goitre the changes are irregularity in size and outline of the alveoli, some being very irregular and large with at times papillated projections into lumen; others small, so that epithelium occupies all the alveolus. The cells are larger, more columnar in shape, show active proliferative changes, are at times heaped up or form double layers. The colloid is present in only small amount in the acuter cases and is thinner and does not stain well with eosin as does normal colloid. In some cases considerable colloid is present of this non-stainable character. Kocher[6] remarks "the quantity of colloid in the vesicles is in inverse proportion to the severity of the symptoms." In a few cases, particularly those of long standing, there may be much colloid, partly non-staining and partly stainable, and here, no doubt, a degenerative process is established. In some cases rather extensive cell disintegration appears. This may be a feature of some very severe cases or

again may be found in cases of long standing with an acute exacerbation.

Altogether the gland, during the course of the disease, presents the features of marked functional activity evidenced by cell proliferation and formation of a thin colloid in considerable amount.

Turning now to alterations in other organs, we can say that there are none that are either constant or distinctive. Such as do occur can be accounted for by increased functional activity, such as the hypertrophy of heart.

The exophthalmos which occurs in about 75 to 80 per cent. of cases has received various explanations, as increase of retrobulbar fat, which is Murray's[7] explanation; spasm of Muller's muscle fibres is another explanation which has received considerable support; while still others ascribe this condition to the vascular congestion. As the exophthalmos does not disappear after death, Murray's explanation is the most rational, though, no doubt, others play parts of importance during the clinical progress of the case.

To summarize the prevailing ideas of the etiology and pathology of this affection. Up to the present the theory of Mobius has generally been accepted. This theory as more directly stated by Wilson[8] is as follows:

"The development of Graves' disease may be formulated as follows: (1) Following a metabolic, chemical or extra-organismal irritant, the thyroid parenchyma proliferates, over-functionates and may degenerate; (2) The histological process resembles simple adenomatous proliferation or that of an adenopapilloma; (3) The severity of the symptoms depend on: (*a*) the amount of absorbable secretion, and (*b*) the patient's ability to neutralize the secretion."

This would make the condition purely one of over-function of the thyroid, but I believe the explanation of Beebe and Rogers as formulated by the latter in discussion on this subject at the meeting of the American Medical Association in June last (1911) is more in accord with the present known facts of the bio-chemistry and pathology of the gland. As I have already stated, these investigators look upon the development of Graves' disease as a result of fatigue of an over-stimulated thyroid, and

I can best finish this discussion by a quotation from Dr. Rogers: "It is assumed, therefore, that in Graves' disease, fatigue damages the bio-chemical relationship of the epithelium with iodine and in an ineffective attempt to metabolize this element properly, the epithelium proliferates too rapidly and disintegrates, and instead of a colloid containing the normal proportion of iodized proteids, there results one in which there is an excess of one or more elements and a deficiency of others. Specifically there seems to be an excess of one, designated here as a nucleo-proteid, which is believed to activate only the chromaffin (sympathetic) system, and in the more severe forms of the disease a deficiency of the globulin component of the secretion, although in the milder forms of the disorder this also may be more or less abundant, but of inferior quality. In consequence of this excess of nucleo-proteid, the whole sympathetic nervous system which supplies secreting glandular epithelium is unduly stimulated and one or more vicious circles are immediately started which tend to perpetuate the process."

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Discussion.

W. T. Connell.—I regret that no one has seen fit to discuss the etiology except Dr. Rogers, of Ingersoll, who states that simple and exophthalmic are opposite conditions in all respects. My paper has answered this position. The prevailing view here to-day seems to be that the proper treatment of these cases is surgical. I would dissent strongly from this view and say that surgical treatment should never be attempted till medical measures have proven ineffective. True, by removal of a portion of thyroid, the surgeon removes a part of the hyperactive gland, lessens the amount of altered secretion being thrown into body and breaks certain of the vicious circuits which have been established. He does not, however, actually remove the underlying cause, for the thyroid alteration is in response to some factor calling for increased secretion, and this the surgeon does not touch. The surgeon removes the result, not the underlying cause. Rest, proper dietary, correction of gastro-intestinal disturbances and allied measures will often do quite as much, and no patient should, in my opinion, be submitted to operative procedures till these measures have failed.

LACTATION AND BREAST-FEEDING *

BY GEORGE S. STRATHY, M.D., C.M., M.R.C.S., L.R.C.P.
Assistant Pathologist, Hospital for Sick Children, Toronto.

It is not my intention to recite to you the many reasons why breast-feeding is superior to artificial feeding nor to give you harrowing statistics of the mortality in artificially-fed babies. Although these are of the greatest importance to the State the correct places for their propagation are the public platform, the lecture for mothers and the homes visited by the practitioner. To insist upon the importance of breast-feeding whenever possible is nowadays quite unnecessary in most meetings of medical men and to lecture to a Section of State Medicine with that object in view would be presumptuous.

My endeavor is rather to point out how weaning may be avoided or postponed until the infant has arrived at a proper age.

Recent experimental work by physiologists has opened up paths which may be usefully followed by pediatrists.

At the start a few considerations of the physiology of lactation may not be out of place. The old idea that milk collected in the breast by osmosis has been abandoned. It is now known to be secreted by the cells of the gland and to be formed by the cells. Lactose which is present in milk is not found in the blood. Lactalbumin is not the same as serum-albumin. Therefore the breast must elaborate these two substances from the blood by the work of its epithelium. Fat is also formed in the breast by the secreting cells of the gland.

The cause of the secretion of milk by the breasts was long debated, but recently the work of Ott and Scott in America and Starling, Schäfer and Mackenzie in Great Britain has done much to elucidate it. For many years it was believed that the secretion of milk was under nervous control and was the result of nervous stimuli. The effect of shocks on the nursing mother was cited in proof. On the other hand no secretory nerves to the

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breasts have ever been found, and cases are on record where lactation has followed parturition in spite of destruction of the spinal cord.[1] Thanks to the work of the afore-mentioned physiologists, we now believe that lactation is induced by the action of a hormone. A "hormone" (a term coined by Starling, who described it as a physiological messenger) is a simple chemical compound which is not destroyed by boiling. In support of this view the case of the pygopagus Blazek twins was quoted. They are united by a common sacrum. One of them becoming pregnant, the breasts of both secreted milk.

Ott and Scott[2], in 1910, showed that extracts of the posterior lobe of the pituitary, when injected into goats rapidly caused a marked flow of milk. They also found that other animal extracts—thymus, pineal glands and corpus luteum—had a similar but less powerful effect. Mackenzie and Schäfer[3-4] followed up their work, using cats for experimentation. They concluded from their experiments that the secretory activity of the mammary gland is not under the control of the nervous system, but is controlled by substances which reach the gland through the blood stream. Extracts of pituitary body, corpus luteum, pineal body, involuting uterus and lactating mammary gland were found to stimulate the secretion, while extracts of placenta and fetus were found to inhibit the secretion of milk. Administration of pilocarpine and atropine and electrical stimulation of the nerves to the mamma did not have any effect on the secretion of the gland.

These experiments do not explain a very important fact to which I shall refer later, that is, that sucking stimulates lactation. Males, virgin females and virgin heifers have been known to secrete milk when frequent irritation or suction was applied to the nipples. A breast which has apparently stopped secreting may become active again, if nursing is attempted, after a period of several days, and sometimes several weeks.

Another point which is well worthy of consideration, even if it cannot be proved, is that an infant brought up on the bottle is probably deprived of some of its rightful heritage. We know that physical characteristics are inherited. It is a belief that traits of character are largely, or at least partly, the result of heredity. Character, disposition, mind, all have to do with

physical phenomena; probably all have a physical basis. Recent work in immunity goes to prove that complement and antibodies[5], the non-specific factor and specific factors, are found in appreciable quantities in human milk. If this be so, babies may derive some of their strength of resistance, what we call constitution, from the milk of their mothers. Is it unlikely that this partly accounts for the fact that breast-fed infants withstand infection better than those who have been bottle-fed?

As our whole idea in feeding babies is to follow closely physiological conditions, the question may well be asked, What is the physiological age for weaning? The savage mother nurses her child until it is three or four years old. The woods Indians in Ontario, who have no cattle or other animals from which they can get milk, usually nurse their children up to three years of age, but give them other food as well. It is not very uncommon in hospital practice to see healthy infants who have been nursed for eighteen or twenty months, sometimes even two years. Amongst the well-to-do breast-feeding is usually discontinued at about the tenth month. If mother and child are thriving it is wise, especially amongst the poor, to continue breast-feeding for eighteen months. This is not usually possible. Social duties interfere, and when all conditions for ideal bottle-feeding can be fulfilled such a long period of breast-nursing is unnecessary; but the tendency to shorten the time of maternal nursing is going too far and should be checked.

It is impossible to formulate absolute rules to decide whether weaning shall be advised or not. So much must depend on the circumstances in each case. Breast-feeding is especially important among the poor. There are two main causes which may lead to weaning before the customary time: (1) Ill-health of the mother; (2) Failure of the child to thrive. Speaking broadly, one may say that in any condition of the mother, when the extra strain of nursing will reduce her chances of recovery, or when she continues to fail in health, although not suffering from any definite disease, breast-feeding should be diminished or discontinued. Once the mother regains her health, it may be wise to increase the breast-feeding; and even if breast-feeding has been discontinued it may be possible to start lactation again. The facts that the supply can be increased by putting the baby

to the breast more frequently, and that secretion can be started again in the same manner, are not widely known, but nevertheless they are important aids in occasional cases. I have had personal experience of these facts in a few cases, but the assistants in Budin's clinic report remarkable instances of stimulating apparently dried-up breasts to secrete.[3] Infectious diseases of short duration are not, as a rule, sufficient cause for permanent weaning, although the baby may require auxiliary feedings or may have to be bottle-fed entirely for several days. In severe puerperal sepsis, or when there is the slightest suspicion of puerperal insanity, maternal nursing should cease.

In tuberculosis and syphilis changes in the customs of the past are seen. The mothers of all syphilitic babies are themselves syphilitic, and the children of syphilitic mothers are nearly all syphilitic. The Wassermann reaction has proved this. Syphilis is no contra-indication to maternal nursing, but is to wet-nursing.

There is a steadily-rising wave of opinion that the transmission of bovine tuberculosis to human beings is rare, if it ever occurs. The majority of cases of tuberculosis are the result of infection in early childhood from persons suffering from pulmonary tuberculosis. The tubercle bacilli may lie dormant for years, usually in the mediastinal or mesenteric glands, and later give rise to active tuberculosis of bones, lungs or other organs. In the Tuberculosis Clinic at the Hospital for Sick Children we find in over 90 per cent. of the cases a history of exposure to infection from a parent or some other person who has pulmonary tuberculosis coming in close contact with the child. This may sound like a strong argument against breast-feeding from tuberculous mothers, but as the father is almost as frequently the source of infection as the mother there is no reason to believe that the child is infected through the milk. Tubercle bacilli have never been found in human milk when the breast was not diseased. Cows' milk frequently shows the presence of tubercle bacilli because tuberculous ulceration of the udder is common.

I believe that the only way in which we shall be able to stamp out tuberculosis is by isolation of all open cases of pulmonary tuberculosis; but until we do so I think mothers should

be taught to prevent the infection of their offspring which occurs through the mothers' mouths, and not through their breasts. Feeding children on the milk of tuberculous cows is not justifiable until the question of bovine infection is absolutely decided.

On the question of tuberculous mothers nursing their babies I am not prepared to give a decided opinion, but my practice at the present time with poor patients, who will be with their children anyway, is to allow maternal nursing so long as mother and child are thriving. The mother is given explicit instructions to avoid danger of mouth infection by kissing, etc. Amongst the well-to-do, where a nurse is employed to take care of the baby, the chances of infection by mouth are unnecessarily increased by allowing the mother to nurse and handle her child. This risk should be lessened by insisting on bottle-feeding after the first few weeks, and during that time precautions should be taken to prevent infection.

When the baby fails to gain, although the mother is healthy, it is customary to examine the milk to find if it is sufficiently rich in fat and protein. The analyses made are usually valueless, as the composition of the milk varies at different times of the day, and the fore-milk, which is most commonly examined, is lower in fat than the after-milk. To be of much clinical value analyses must be made frequently, and the milk to be tested should be drawn off after the baby has nursed for several minutes. Slight apparent deficiency in the percentage of fat should be disregarded, as the whole amount of fat in normal milk is seldom digested.

Attempts to improve milk by changing the mother's diet are seldom successful unless there has been some marked indiscretion in the diet. Porter, stout and wines, so frequently ordered, rarely do any good, and sometimes upset the mother's digestion. Less work, or a midday rest, will sometimes work wonders on the milk, or if the mother is relieved of the care of the baby during the night, and a bottle-feeding is substituted for the night breast-feeding, the mother's milk may improve in quality and weaning be postponed for months.

If, in spite of regulation of the feedings and treatment of the mother, the infant fails to gain, some change must be made. Here, I think, we too frequently take the baby off the breast

entirely, when a mixed feeding is often possible. Occasional breast feedings are a useful reserve on which to fall back if a baby is upset by artificial foods or is suffering from slight illness. Whether mixed feeding takes the form of complemental or alternate feedings is not usually of great importance. Recently complemental feedings are becoming popular.

Another aid, which is sometimes hard to obtain, but which is not often enough sought for, is wet-nursing. This Academy of Medicine could serve another useful purpose by keeping a registry of wet-nurses. In this the fellows would have to co-operate by reporting suitable wet-nurses who might be available. There are many women who, having a greater supply of breast milk than their own babies require, would gladly accept the chance to earn money in this way. Other women who have to wean their infants in order to go out and earn a livelihood would willingly become wet-nurses.

A month's delay in weaning is not a negligible gain if the babe has thrived during that time, for every month of age passed makes weaning easier. The older the child the greater is the resistance to that scourge of bottle-fed infants, gastro-enteritis.

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Selected Articles

AN ADDRESS ON THE USE OF OUR AUTHORITY *

BY STEPHEN PAGET, F.R.C.S.

It is an honor to me to speak here this evening, and, as I thank you, so let me wish you in your practice health and strength, assured and sufficient incomes, the gratitude of many patients, the affection of many friends, and the blessing of good homes of your own. May you be to the very end glad of your calling, content with your work, and able to look back with thankfulness over your record. It is easy thus to offer you my best wishes; but I am no less bound to submit a discourse to you, and I have taken as my theme—the Use of Our Authority.

It is our right and our imperative duty on certain occasions to speak with authority and to act with authority. Consider, first, the occasions and the limits of our acting with authority. Here in hospital life house physicians and house surgeons have behind them the authority of their chiefs and the authority of a great hospital, but in practice a man must act on his own authority. But how far may he go? The Chancellor of the Exchequer, speaking lately in the House of Commons on the National Insurance Bill, declared that no workman should be deprived of his benefits for refusal to undergo an operation. "I feel so strongly," he said, "the necessity of not compelling workmen to submit themselves to be cut up." He conceded this much, that minor operations should perhaps be put on a different footing from those operations which he called "cutting up;" but he was quite sure that no workman should be compelled, by fear of losing his benefits, to be cut up. In the course of the debate, some instances were given of minor operations; they

*Delivered at the Opening Meeting of the Medical Society of King's College Hospital, on October 13th, 1911.

were the extraction of septic teeth, the administration of diphtheria antitoxin, the opening of whitlows, and the making of incisions in cases of cellulitis. These measures, it seems, may come well within the range of our authority; we may be authorized to cut, but not to cut up. But, as things are, what will you do in your practice, in a case of grave emergency, if the patient refuses point-blank to be cut up? Imagine a man with strangulated hernia, or empyema, or perforated gastric ulcer, or appendix abscess. What would you do if a man with strangulated hernia absolutely refused operation? What would you do if the parents of a child with bad laryngeal diphtheria absolutely refused to let you give antitoxin? It is a difficult question. I hope that I should have the courage to give the antitoxin by stealth, taking that view of the consequences which has been so well expressed by Lord Milner. But one could not operate by stealth on a hernia. Shall we therefore go right away, refusing to stop in the dreadful house, go right away and give information to the nearest magistrate? That would be, I think, our natural impulse. Indeed, the question was asked in the House of Commons, during the debate on the National Insurance Bill, "Is it lawful to save a man's life against his will?" and certain hon. members called out, "No." It seems a pity to spend on each of them £400 a year, for there are few cases more sad than those where an operation, urgently needed, is refused. I still remember, though it is more than thirty years ago, the misery of seeing a child with bad laryngeal diphtheria taken out of hospital by its mother without the relief of tracheotomy.

In these grave and ugly emergencies we must use our authority very boldly, even at the risk of public or official censure. But on occasions of no very serious importance nothing is more tiresome than a doctor who is always asserting himself and getting his own way. It is bad enough to be ill, without being worried by fussy little rules. I have been many times under the care of good doctors, good surgeons, good nurses, and I thank God for their skill and their kindness: but I specially admired in them this gift, that they left me free to see my friends, to be alone when I liked, and mostly to eat and drink what I liked. Hold your authority in reserve; keep it for the great occasions of action; and, when such an occasion does arise, unmask your

heavy artillery, and let nothing stand between you and a life to be saved.

Consider, next, that we are bound in our calling, now and again, to speak with authority. But I am not thinking here of questions of diagnosis and of prognosis and so forth: I am thinking of what are called subjects of general interest. It is our duty to give and uphold, on certain subjects of general interest, a clear, downright, positive opinion, such as people expect to have, and ought to have, when they ask us what we think. For it is an honor to be asked, seriously, what we think: and we must pay back the honor, not with vague phrases or mere chaff, but with a careful definite answer, worth having. If a man is wanting our help and our advice, and we put him off with platitudes, or with childish affectation of indifference, or with a "fool-born jest," we not only disappoint him, we insult him.

For we are bound, by our education, by our experience, to be teachers; it is our business, on our way through life, to give instruction. People do look to us for that; they do like to know what the doctor thinks. Of course, there are many subjects of general interest which lie so far from our work that we cannot speak of them with any remarkable authority. For instance, nobody cares what our profession, as a profession, thinks of politics, or music, or books. One may have to talk about them at a dinner party, and happy is he who can do it well; but they ought not to be in the line of our most habitual thoughts; they do not exactly correspond with the familiar well-worn furniture of our minds; we are not intimately concerned with any politics but medical politics, nor with any art but our own. I would even dare to warn you that the young doctor who is mighty serious over politics and music and books, and loves to be talking of them, is a delightful person, but is not likely to attain a very large practice. If I had to prophesy between a student who was fond of talking Shakespeare and a student who was fond of talking shop, my prophetic judgment would be in favor of the latter student.

But, between these two extremes of conversation, there are certain great intermediate subjects of general interest which lie near to our work, hang on to our special knowledge, and fall into line with our professional experience. They are measured

by our standards, illustrated by our facts, examined by our methods of inquiry. Therefore, we ought to have something to say about them worth hearing, something to be said with authority and received with attention. Of course, we must yield a point here and there; we must admit exceptions to rules; we must remember that our profession is too difficult to be infallible or indivisible. None the less we ought to give, on subjects fairly close to us, a full, deliberate opinion, such as may deserve to be remembered, and even to be quoted.

For example, people expect us to speak with authority on all that concerns eating and drinking. They have a right to expect that from us, who know so much physiology. What do we think about vegetarianism? What do we think about stimulants? Why is it that the doctors do not prescribe alcohol now as they did thirty years ago? We ought to give an authoritative answer to these very proper questions. For it is not open to doubt that the old national ideas of meat and drink are changing. Think, among those of our own station in life, how little wine is drunk nowadays, how little reverence is paid to beef and mutton. This change has not yet gone far among the very poor; but it will, and a good thing too. Surely we doctors ought to speak with authority of the waste of hard-earned money among the poor on scraps of third-rate meat, and the worse than waste of money on so many quarts of beer. But we must mind what we say, for I think that we have followed the fashion here, not led the fashion. We have been not only reformers, but reformed. I think, also, that we must not rest our authority in this matter on science alone. Beware of all vegetarian arguments deduced from the structure of our teeth or of our intestines, or from the fact that nuts are rich in albuminoid substances; beware of water-drinking arguments deduced from the fact that small organisms perish in a dilute solution of alcohol; for it is probable that they would fare just as badly in a bottle of lemonade. Take a wide view of the subject; give your opinion, and give it with authority, that our national butcher's bill is too high, and our national drink bill much too high; that most of us eat more meat than we need, and that many of us want none or next to none; and that we mostly take wine or beer for this reason alone, that we like the taste and the pleasure of them. I had a good

lesson, not long ago, in the new ideas about food. I observed at a dinner party that my neighbor was eating nothing, and I asked why. "No," she said, "I've eaten nothing for fourteen days—nothing but a little water." She was trying the Upton Sinclair plan of total starvation, to see what would happen. She had a theory. Never mind her theory; consider her performance. There she was, and had been for a fortnight, on nothing but a little water, to see what would happen; and nothing had happened. Think what a large quantity of solid food in that fortnight had gone into each of us. For six days more she fasted absolutely. All these twenty days she went about her usual affairs in a quiet way, not living as an invalid. Toward the end of the time she began to feel weak, so at last she left off. Surely we may well commend to most people a Spartan diet, for here is somebody who went for twenty days on no diet at all.

Another subject on which we must speak with authority is vaccination. Let alone the sound ethical argument, that a man must not leave undone what is good for the general safety of the community; our authority rests not on ethics but on facts. Concede to the antivaccinationist that in times happily past it is unhappily true that a few cases of syphilis did occur from arm-to-arm vaccination; they were not one in fifty thousand—still, they did occur. Assure him that neither syphilis nor tubercle can be transmitted in glycerinated calf-lymph. Then arm yourselves with half a dozen authoritative facts. Get these facts in a handy form from Dr. Bond, of Gloucester, who is the Honorary Secretary of the Jenner Society; get them now, before you forget; and keep them by you, till you want them. Have in your minds the history of the Gloucester epidemic of 1895-96; how, in the Gloucester Cemetery, are the bodies of 279 unvaccinated children who died in that epidemic, and only one vaccinated child. Have in your minds, also, the complete immunity of well-vaccinated doctors and nurses attending cases of the disease. But do not take your facts from this country alone; for here in England we have strict sanitary laws, and vigilant medical officers of health; besides, in England there is not enough smallpox left for an appeal to overwhelming statistics. Therefore, take your facts from virgin soil; take them rather from the East than from the West. Here, for instance, is a good weapon, lately forged against the

enemies of vaccination. In May of this year the doctors in Philadelphia gave a banquet to the President of the United States; and after dinner he made them a speech, saying what great things they had accomplished in Havana, in Panama, and elsewhere, against yellow fever, malaria, dysentery, typhoid, and other scourging diseases; and he went on to speak of America's latest possession, the Philippine Islands. And these are his words: "By a wholesale vaccination of all the inhabitants of the Philippines, carried out carefully and rigorously, we have practically stamped out smallpox of all kinds in the islands, in which the black smallpox of the most virulent type flourished before our coming." Surely, these words of the President of the United States are more worth having than a whole shelf of anti-vaccination tracts. Or look at the vast accumulated experience of India: there is no more overwhelming proof to be desired of the innumerable hosts of men, women, and children safeguarded by vaccination from the horrors of smallpox.

Another subject on which we must speak with authority is experiments on animals. I do not use the word "vivisection," for two reasons. First, because it raises in the minds of many people a false image; next, because 95 per cent. of all experiments on animals in this country are inoculations, or experiments of the nature of inoculations, involving no sort or kind of cutting operation. Let me therefore advise you to use the phrase, "experiments on animals," not the word "vivisection." And let me urge you to speak with authority on this very important subject. I shall always be happy, as Honorary Secretary of the Research Defence Society, to arm you with handy facts; and I greatly hope that some of you may be willing to become members or associates of this society, and to advance its useful educational work. It puts before the public, and it keeps before the public, that national debt of gratitude which we owe to experimental physiology and pathology; and not we alone, but also the animal world. Anthrax, rinderpest, pleuro-pneumonia of cattle, swine erysipelas, Texas cattle fever, African coast cattle fever, horse sickness, nagana, glanders, tubercle in cattle, tetanus in horses—think how these great ravaging diseases of the animal world are to-day understood, recognized, or, best of all, prevented, by knowledge gained from the inoculation of test ani-

mals. It is not only men, women, and children, it is also sheep and cattle, horses and swine, cats and dogs, that are the better for experiments on animals.

It is here, to my thinking, just here, that you find your answer to the ethics of the antivivisection societies. They say that experiments on animals are cruel. But imagine that they had been able, thirty years ago, to stop all experiments on animals. They would be guilty by this time of all the pain, all the death, which have been averted these thirty years by methods learnt through experiments on animals. The whole earth would be piled with their dead; they would have inflicted pain, misery, death on millions—literally millions—of human beings and animal beings. They would have robbed the very animals of their right to be protected by man against their own diseases. It would be hard, even in a nightmare, to imagine more gross and shameless cruelty.

But you may be thinking that the sixteen antivivisection societies ought to be treated with what people call "silent contempt." Let me submit to you that the matter goes too deep for this kind of treatment. First, because many honorable, kindly, well-meaning Englishmen and Englishwomen have been induced to give their names and their money to one or another of these many societies, and we are not in a position to treat our equals in life with "silent contempt." Next, because antivivisection, these last few years, has taken a turn for the worse. As it is losing its hold on thoughtful people, so it is appealing frantically to the forces of ignorance and of hatred. Let me remind you what was said two years ago at the London Antivivisection Congress by Sir George Kekewich: "Our chief hope," he said, "is not in the idle rich, but in the workers." You know what that means. You can see him trying, as they call it, to "touch the great heart of the democracy." He went on to speak of the Research Defence Society. It was supported, he said, by members of the medical profession and by the wealthy. The former saw their profits in danger; the latter swallowed with avidity the fairy tales of the medical pseudo-scientists, who told them that the holocaust of tens of thousands of unfortunate animals bled to death and cut to pieces would result in discoveries which would enable them to enjoy their lives and their wealth a little

longer. You know what that means—it means class hatred, fanned by the "Brown Dog" monument, and meetings in Trafalgar Square, and orators in Hyde Park of a Sunday afternoon, and shop windows with stuffed animals tied to real boards, without one word said about the anesthetic. It means the distribution among the poor of leaflets warning them that diphtheria antitoxin is "animal filth," and tuberculin worse than useless. In brief, antivivisection is gone down into the hard lives of the very poor, to bid them beware of us and of the hospitals. Therefore, you must not treat it with "silent contempt," for its false prophets may do a lot of mischief. They will not convert many of "the workers;" they will not really "touch the heart of the democracy;" you will not find, when you open your glorious new hospital in South London, that the Battersea Hospital will be a dangerous rival; the great heart of the democracy is in its right place; but, in every big city, there are minds easily captured by such orators as Sir George Kekewich; and there are minds glad to believe charges of iniquity and brutality. "Something or other," says Newman—"something or other men must fear, men must loathe, men must suspect, even if it be to turn away their minds from their own inward miseries." It is here, not among thoughtful and fair-minded people, but among these less fortunate people, that we have to stand up for the honor of our profession, and to speak with authority of the necessity for experiments on animals. Especially I ask you to speak your minds clearly about those two or three antivivisection doctors who assail the leaders of their own profession with all sorts of abuse. They have long ago forfeited every shred of claim on your courtesy. Here, for example, is what one of them lately said, at a public meeting, of the death of His Majesty the late King: "They could not say directly that the death of King Edward was due to vivisection nostrums, but they knew that his case presented mysterious symptoms; that he was doctored with bacteria of the most nauseous kind, which utterly failed in its effect; and that the officials in charge of his precious health had to put forward three accounts of his illness, all contradicting each other, and had finally to get Queen Alexandra to say that they had nothing to do with his death." And here is what another of them has said: "Haffkine's serum is an insane process of blood

poisoning and plague dissemination. Bruce produced symptoms of blood poisoning and called it Malta fever. Flexner's statistics are simply fraudulent. Pasteur's statistics are a complete fraud. Lord Lister floated into the House of Lords on a sea of carbolic spray. Pasteur was a complete charlatan." These men who talk like that are going all over the country on the antivivisection platform: and, when you are asked your opinion of them, I advise you to give it with authority.

There is another subject of general interest on which I want you, in practice, to speak with authority, and that is Christian Science. It is one of the hardest of all subjects, for it is half a dozen subjects in one. It invades all the kingdoms of the mind; it calls itself a system of philosophy, a system of religion, and a system of healing. You will find yourselves, in practice, brought up suddenly against Christian Science as against a wall in the dark. This wall mostly will be stronger than you. Do not reckon that you will succeed where the family and the friends and the cleric have not succeeded. You are up against that state of mind which is content with the phrase, "God is All;" and that state of mind is not likely to tumble down, like the walls of Jericho in the Bible story, just because we doctors march round it blowing our trumpets.

Yet we surely must be able, to some extent, along some lines, to speak with authority of Christian Science. It is impossible that we should have nothing to say worth saying. What are we for, and what is the world for, unless pain be as real as pleasure, disease as real as health, and death as real as life?

It is all very well to protest in this way; but I had a shrewd thing said to me not long ago by a well-known American cleric, Dr. McComb, of Boston, who has founded in Boston and elsewhere what are called "spiritual clinics." It sounds to me an ill-chosen name, and I prefer the other name, which is "the Emmanuel Movement." These spiritual clinics are friendly meetings or consultations for the giving of sound common-sense medical and religious advice and encouragement in cases of alcoholism, drug taking, neurasthenia, hysteria, sexual perversion, fixed ideas, and other miseries of this kind. The work is kept always under medical supervision, and the results are very good. In brief, the purpose of the Emmanuel Movement is to beat Christian Science

with the united forces of Christianity and Science. "We gained nothing," Dr. McComb said to me—"we gained nothing in America by attacking Christian Science, because we had nothing better to give to people instead of Christian Science." Neither Mark Twain's ridicule, nor Mr. Peabody's bludgeon, nor Mr. Lyman Powell's quiet argument, nor Miss Milmine's elaborate study of Mrs. Eddy's career, had beaten Christian Science; for to all of them the Christian Scientist answers that God is All. We show him pain, disease, and death; he denies their reality. He believes in miracles, and we cannot show him miracles. What have we to give him better than his comfortable creed? Cases of cancer, consumption, diabetes, Bright's disease, valvular disease, have to be told, many of them, that we cannot cure them. Cases which we call "functional" drift, many of them, from one doctor to another, and then to quacks, and then back to us. Cases of chronic catarrh, chronic rheumatism, chronic this, that, and the other—what have we to give them, who already have a whole bundle of old prescriptions and a whole cupboardful of empty medicine bottles?

Christian Science brings to a vast number of such cases a quiet body and a quiet mind. We do not pretend to work miracles, nor do we deny the reality of pain, disease, and death. It is no wonder that Christian Science scores, for we can only give to people, instead of comfortable falsehood, uncomfortable truth.

Well, then, let us exercise our authority to give that. Against the sham metaphysics of Christian Science let us oppose true metaphysics; against the religion which denies the reality of pain and of death, yet calls itself the Church of Christ, let us oppose this question, Were not the pain and the death of Christ real? And against the alleged miracles of Christian Science let us oppose the plain fact that they do not happen. Again and again they have been investigated. They rest on religious fervor, on imagination, on mere gossip, or on downright bluff; they do not rest on facts. Neither is it a light matter that Christian Science, meddling with organic diseases, has killed vast numbers of poor folk whom any skilful surgeon would have saved. Two years ago, in a book which I wrote on the subject, I published a long list of such cases, and have added to it since; and I said in this

book: "They bully dying women, and let babies die in pain; let cases of paralysis tumble about and hurt themselves; rob the epileptic of their bromide, the syphilitic of their iodide, the angina cases of their amyl nitrite, the heart cases of their digitalis; let appendicitis go on to septic peritonitis, gastric ulcer to perforation of the stomach, nephritis to uremic convulsions, and strangulated hernia to the *miserere mei* of gangrene; watch, day after day, while a man or a woman slowly bleeds to death; compel them who should be kept still to take exercise; and withhold from all cases of cancer all hope of cure. To these works of the devil they bring their one gift, wilful and complete ignorance; and their 'nursing' would be a farce, if it were not a tragedy. Such is the way of Christian Science, face to face, as she loves to be, with bad cases of organic disease." I wrote that, with notes of the cases before me; and, though I would soften just one or two words, yet the facts remain.

Now let me make an end of this long discourse. It is our duty, now and again, to act with authority and speak with authority. Some of us are afraid of this behavior, lest people should call them domineering in action, and priggish or self-advertising in speech; especially, they are afraid of the charge of self-advertisement. But we are bound, on our way through life, to be teachers. We learn so many sciences, we gain such wide experience, we see so closely the good and the bad in people. What right have we, after all that, to shut ourselves up in ourselves? Learn how to speak with authority, without cheapening of science, without self-advertisement; telling people not only what you think, but why you think it; giving them vivid memorable facts and arguments which cannot be disregarded. I even advise you to be willing to give them lectures. For he who goes through life, in our profession, fumbling between two opinions, neither of them his own, misses innumerable opportunities of being useful; and he fails to adorn that station of life in which it has pleased God to place him. And, of course, as this is true of members of the medical profession, so it is true of members of the nursing profession. Nurses, like doctors, are bound, now and again, by their education, by their experience, by their insight into things as they are, to speak with authority; and I venture to commend this duty to the sisters and nurses who honor us with their presence at this meeting.—*Brit. Med. Jour.*

THE BRITISH INSURANCE ACT

The British Medical Association has issued an official statement in vindication of its refusal to continue negotiations with the Chancellor of the Exchequer on the medical benefit provisions of the Insurance Act.

It is pointed out that previous to the drafting of the bill the profession was never consulted by the Government. "Over twelve months of waiting and negotiation have resulted in many fair promises with little material result. Several of the points to which the profession has drawn repeated attention have been ignored, and as regards the income limit and the amount of remuneration, the association has been plainly told that its demands cannot be granted. Further negotiation, therefore, seems useless."

Speaking broadly, the conditions which the profession has declared to be essential to the securing of the co-operation of the profession, and which the Government has shown no disposition to concede are: (1) That the profession shall not be under lay control; (2) that there shall be an income limit of £2 per week so far as medical benefit under the Act is concerned; and (3) that the Government shall provide a sum of 8s 6d per head per annum, exclusive of medicines and extras, as remuneration for medical attendance under the Act.

This does not mean that the medical profession wishes to be freed from its responsibilities to the public, or to the Insurance Committees if these become its employers. The medical practitioner is responsible like other citizens to the law for his actions, and, in addition, to the General Medical Council for his conduct as a professional man. But the profession can never consent to place itself under the control of a lay committee in the way in which it is invited to do in regard to the Insurance Committees. It is true that the Act sets up local medical committees elected by the medical profession which must be consulted by the Insurance Committees on all medical matters. The profession regards this "consultation" with suspicion. It may mean much or nothing, and the profession is not willing to trust its whole future interests to the keeping of the local Medical Committee, to find

when it is too late that the "consultation" of that body by the Insurance Committee is a mere matter of form. On this aspect of the question the Association has been able to get no satisfactory assurance from the Government or the Commissioners.

The position of the profession, as regards the income limit, has been much misunderstood. It is not intended that any person entitled to the benefits of the Act should be deprived of them, but simply that, so far as medical attendance is concerned, the insured person earning over £2 per week should be given the amount of money allowed for medical benefit, and permitted to make his own arrangements. It is believed that a very large number of the better paid insured persons would welcome such a step, as experience shows that this class, generally speaking, prefer to employ their doctor privately. The main reason for insistence on the income limit is that it is believed to be a fair and efficient way of limiting the amount of contract work which will be done under the Act. Contract medical practice in the past has been done under conditions which have rendered it obnoxious to the medical profession as a whole and also to many of the public, and many of the best practitioners have declined to engage in it.

It is recognized that there are areas, such as colliery districts, where contracts including the workers, their wives and families, have for many years existed to the satisfaction of all parties concerned, and in which no limit of this kind is recognized. There would be no objection on the part of the profession to continuing such arrangements.

As regards the 8s 6d per head per annum, which the association considers is the minimum amount which the profession should be paid for medical attendance under the Act (exclusive of medicines and extras), the association feels that the attitude of the Chancellor of the Exchequer and the Commissioners has been disingenuous and evasive. On being asked by the Chancellor to present its case justifying the claim for 8s 6d, a detailed document was submitted by the association, the main arguments in which have not been controverted; indeed, no attempt has been made to answer them.

The figures supplied by Sir William Plender's report, far from undermining the association's case, on the whole support it.

Those figures show that the present income of a medical man spread over the population of the towns inquired into is 4s 2d per head, but this is for 1.8 attendances per annum—a figure which shows that a large number of the population are not attended at all, or are insufficiently attended. All who are acquainted with contract practice are aware that the number of attendances under any system where the patient can demand unlimited attendance is about four per annum, under systems which, generally speaking, do not allow of free choice of doctor. It is certain that when the insured persons come under a contract system which allows unlimited attendance with free choice of doctor the amount of attendances, instead of being 1.8 per annum, will be more like five. On this calculation the 8s 6d demanded compares unfavorably with present remuneration.

The association has always laid great stress upon the fact, persistently ignored by the Chancellor and by the Commissioners, that 8s 6d is paid by the Government at present for medical attendance on postal servants, and is also the usual fee for attendance upon policemen and firemen. If 8s 6d, to include the provision of medicines, is a fair payment for medical attendance on people in these services, who are carefully picked lives, working under excellent sanitary conditions, who are invalided out of the service if they fall into permanent ill-health, and who are pensioned at an age when the incidence of sickness becomes greatest, surely 8s 6d without medicines is not too much to ask for persons who are not selected lives, who cannot be invalided out of the insurance service, and who must be attended at the same rate of payment to the day of their death.

It would be mere affectation to say that the profession in this struggle is not actuated to a large extent by a desire to get adequate remuneration; but remuneration is not the only, or, indeed, the chief, object of the profession at this time. It feels that it is fighting for its very existence as an independent profession. It is faced by an entirely new set of circumstances, the full bearing of which nobody can yet estimate.

The Government proposes to set up a medical service which will at once include some twelve to fourteen million people, a large number of whom in the past have received perfectly satisfactory medical attendance by means of arrangements made direct

with their own doctor. There is every indication that in the future it will be sought to include the dependants of insured persons, and that thus the service will at no distant date include four-fifths of the whole population. It thus becomes a matter not only of professional but of national concern to ensure that the conditions now set up should be such as will give the public the choice of the best men at present in the profession, and will not tend to lower the standard of the men entering the profession. Under the conditions at present offered the most experienced and trusted practitioners would certainly decline to serve under the Act.

OUT-PRACTICE AMONG THE CHINESE*

BY A. M. WONG, M.B. (TORONTO).

It is with great diffidence that I consent to speak on the subject assigned me as follows: "Out-practice among the Chinese."

All of you have had more experience than I ever had in my few years' practice. There is hardly anything new and interesting for me to say to-day. I will simply mention a few points which I have observed in dealing with our people as a Chinese practitioner, together with some of its difficulties.

First and foremost in practice among the Chinese is to gain the patients' confidence, which means constant effort to break down prejudices, and, in order to attain this, the practitioner must have:—

1. Tact.
2. Knowledge of Chinese.
3. Patience.
4. Kindly feeling towards patients.

I shall first take up the subject of *Tact*. Questions concerning the diagnosis and prognosis are often asked by the patients

* A paper read before the Shanghai Medical Society, January 10th, 1912.

or members of their families. The reply of "You are not a doctor," would be too blunt and even offensive.

On the other hand, it is neither wise nor necessary to tell them the scientific truth. For instance, in the case of latent syphilis, proved by premature labors with macerated fetus, frequent miscarriages, etc., one cannot be too tactful in answering questions to satisfy the patients. I find that the patients will have more faith in the doctor, if he or she can give the diagnosis. But on the other hand one's correct diagnosis often causes family trouble, all through want of tact in dealing with patients.

If the diagnosis be uncertain or prognosis unfavorable, it is better to tell the family about it and get their consent to securing a consultant as soon as possible, but this does not mean to give up the case, nor turn it over to a new hand. The majority of the Chinese would appreciate frankness and realize that it is all for the good of the patient. One must not use the word *doh* or "poison" for infection. The Chinese would take it to mean syphilis or specific trouble, which is not a very desirable expression. They use the word *fung* or "air" for infection. I mean, in surgery, if the wound be infected, it is believed to be caused by exposure or the entrance of air.

2. *Knowledge of Chinese.*—If one has some knowledge of Chinese and a little of their phraseology, one can accomplish a good deal towards professional success. As you all know, according to the Chinese philosophy, there are five elements, gold, wood, water, fire, and earth, and the human body is made up of a harmonious mixture of them. As long as the right proportions are maintained the body remains healthy, but if any of the elements be in excess or in deficiency, physical derangement follows. For example, eczema or scabies is due to an excess of water, whereas fever and ulcers of any kind—including syphilis—are due to an excess of fire, and the liver is one of the principal internal organs that catches fire readily.

Therefore, in case of dyspepsia, flatulency, or gastric cancer, they speak of it as arising from liver-air or liver-fire, caused by mental depression, over-work, lack of sleep, and mal-diet. In specific diseases, they think that the excess of fire element in the system requires a cathartic and some medicine to counteract its effect.

Now, in order to explain the symptoms of any disease to a Chinese patient—which is as necessary as the feeling of the pulse—one must have some knowledge of Chinese and of the quaint phraseology, or else he will fail utterly as a practitioner among the Chinese. Of course foreign doctors are excusable to a certain extent, if they do not speak the language at all.

3. *Patience.*—Physicians should listen attentively to what the patient has to say with regard to subjective symptoms. They should make physical examinations carefully and gently. In the treatment of either surgical or medical cases, physicians must feel the pulse of both wrists, or they will be put down as greenhorns in the art of healing. It seems absurd and a waste of time, but while one is thus engaged, he can use his power of observation, and he may be able to obtain a good deal of information, more than what the patient can ever give. Physicians should also give out directions or instructions carefully, and explain beforehand some unpleasant physiological actions of the drugs, if any, because slight nausea or vomiting or colored stools, etc., may cause suspicions in the patients, thereby losing their confidence. Let me mention a case, for example, which happened recently—I was told by a relative of the patient.

A prominent Chinese merchant was ill with fever (supposed to be typhoid). He had native doctors in the beginning, but with no effect, then some of his friends recommended one of the leading physicians in this city; well, his medicine caused him deafness and even a somewhat delirious effect within two or three days. He was in a very critical condition, the whole family suspected foreign medicine, so they sent for a native specialist for typhoid fevers, and he cured him in the course of three or four days' treatment.

One of the chief drawbacks in practice among the Chinese is the lack of trained nurses. In case of fever, fresh air, warm room, light bedding, comfortable clothing, liquid or nutritious diet is unknown to them. They think an almost air-tight room, heavy bedding plus wadded clothing are the best diaphoretics, and salted cabbage, ham, and congee are essential diets for the patients, so it is necessary for physicians to explain about the nursing to some extent.

In ordering a hot or warm sponge bath, it would be well to order a decoction of *Hangchow-lake-willow,* instead of plain water; I find the majority of Chinese will carry out that order very readily.

4. *Kindly feeling toward patients*—Above all things, the most important is to show kindly feeling toward the patients under any and all circumstances. Kindly actions will certainly bring their reward, particularly in the treatment of obstetrical patients, as their gratitude forms the best kind of capital for medical practitioners.

It is very natural for people to think that the native scientific practitioners have less trouble, and it is easier for them to deal with the Chinese, but to speak from my own experience we have more difficulties to endure and more bitterness to swallow.

As a rule the Chinese show more respect for foreign doctors, and they are willing to pay a more satisfactory fee. As to native physicians, especially a woman doctor, it is rather difficult to place her.

She may be considered as a superior *amah,* common midwife, jewel-seller or anything under the sun. Sometimes on the first visit one would be received by a number of inquisitive women with suspicious and doubtful looks. Fortunately, this is not a frequent occurrence; but they expect the native practitioners to do more and charge less than foreign doctors.

I wish to mention a few cases which might be of interest to you:—

Case I. Puerperal eclampsia is rather uncommon in China; I only came across one case in Nanking.

The patient, 21 years of age, primipara, previous history unknown, was in labor for twelve or more hours. I was called at 11 p.m.; she was in convulsions during each pain for several hours.

The patient was small and delicate in appearance, no dropsy, face flushed, pulse rapid, and complete unconsciousness. On vaginal examination the head was rather high, dilatation completed, but being an only daughter of a wealthy family they refused interference; so I left. At 6 a.m. next day they sent for

me again; I found her in a comatose condition and the fetal head was down in the perineum. The child was delivered with forceps without any difficulty (still-born of course); I gave her saline enema, hypodermic injection of ergotin, etc. Her uterus contracted well; she seemed better toward afternoon, no more convulsions. I continued saline enema for a few days and ordered nutritious liquid diet every two hours, but they stuffed her with Chinese medicines behind my back and were afraid to give her milk, broth, etc., only a little rice-water every now and again. She remained unconscious, her pupils never responded to light, no rise of temperature, pulse regular and rapid, between 100 and 110. Bladder was emptied by catheter first two days; afterward she wet the bed two or three times a day. She died from exhaustion or starvation on the twenty-second day. I often wonder if she had been in a hospital under proper care, whether her life could have been saved or not. As a rule, in puerperal eclampsia if the patient survives after delivery she gradually regains consciousness and recovery takes place. I want to call your attention in this case to the fact that she remained unconscious for twenty-two days.

Case II. Mrs. Zih, age 36, multipara, was supposed to be six months in pregnancy, but her abdomen was not enlarged. She had taken Chinese medicine similar to ergot occasionally. One afternoon there was some hemorrhage, but no pain, and instead of taking a rest, she went out for a walk. About midnight she began to suffer from pain and severe hemorrhage. I was called at 7 a.m., and found a piece of adherent placenta protruded in a well contracted os. The uterus was cleaned out under anesthesia with some difficulty; it was unusually small, in fact smaller than the cervix. How could that be a six months' pregnant uterus? Could it possibly be the effect of Chinese medicine? She made an uninterrupted recovery.

Case III. Mrs. Kan, age 22, primipara. Transverse presentation. Membrane ruptured for twelve hours; was under charge of a native midwife and a Chinese nurse trained in some foreign hospital.

A hand prolapsed, but it had been reduced by the nurse when I was called. Anesthetized to surgical degree. On examina-

tion right hand prolapsed, the shoulder above symphisis pubes toward the middle, the side of the chest very much stretched and greatly curved up from right to left. The head was high and in the centre a little toward the mother's left. Reached the buttock with much difficulty and the legs away up in the fundus and feet behind the neck. The cord wound around the neck 3 or 4 times. Placenta partially adherent. Transverse presentation is not uncommon in China, but the fetal parts twisted in a manner described above is rather rare. The last two cases were kindly assisted by Dr. Myers. We thought that perhaps due to the shortening of the cord, which wound up tightly around the neck, this child was actually strangled; had it not been for that, presentation might have been normal. She made a good recovery.

To build a practice in China, even in a city like Shanghai, is not an easy matter, one has to be particularly careful, as once a patient is lost, it will interfere with the practice for a year. It is well to understand that the Chinese have no professional etiquette; they can have or change as many doctors as they please. If one is called and wanted, it is his or her duty to write a prescription and give necessary advice, and one is not supposed to make a subsequent visit unless invited to do so.

I was called to Peking to attend the wife of a high official. Previous to my arrival she had had fourteen native doctors, including one or two graduated from abroad. I was unfortunate enough to live in the same house and acted as a nurse as well as a physician. During my first few days' stay there were four more Chinese doctors recommended by some officials to see the patient.

They did not criticize or interfere with administration of the medicine, but told her husband the difference between Chinese and Westerners' constitutions was such that the liquid diet would bring about an unfavorable result, so he sent his sister and daughter-in-law and asked me to put the patient on full diet. That was enough to make anyone feel like wanting to "pack up and go." Had it not been for their apologies, and even down on their knees, I would have done so the next morning. Fortunately the patient made a good recovery, but

slow convalescence. What is true of a high class is true of every other conservative family. I mention this towards the last, but it is not the least important point for a medical practitioner to bear in mind, for, on the correct understanding of the peculiar custom in China, depends the success of a medical profession in different parts of the Empire.

(*From "The China Medical Journal," March,* 1912.)

EUTHANASIA

Some months ago the attention of the public was attracted by a remarkable occurrence in Florida. In a community of Shakers one of the members was dying of tuberculous consumption. All hope of recovery being past, and life being one continuous and unbearable torment, at the woman's urgent request she was killed by means of chloroform. The members of the community who did the thing were threatened with prosecution for murder, of which they were technically guilty. They calmly admitted the deed, and added that under similar circumstances they would do the same thing again. Public sentiment upheld them, and no legal reprisal was taken. The incident aroused some discussion over the right and propriety of taking life under similar circumstances. The orthodox view is, of course, that no such right exists; and public policy requires the acceptance of this dictum.

The taking of human life must only be done under certain circumstances, under due process of law, as when, for instance, a jury of one's peers condemns the offender to the forfeit. But laws differ widely in various lands. There has been a steadily progressing limitation of the crimes for which life may be legally taken, since Draco decreed the death penalty for every offence, however trivial. Yet as late as the Napoleonic wars, England hung a woman for *intending* to steal a loaf of bread, under circumstances so trying that people nowadays would have commended her and hung her judges. The woman's husband having been impressed, and dragged aboard a ship for sea service,

leaving her helpless and starving, with a nursing babe, the woman took up a loaf, but seeing she was observed laid it down. That was all—they hung her for it.

The killing of the aged, infirm, and diseased is characteristic of the earlier stages of the development of communities, and is justified by the plea of necessity. Before condemning it utterly, one must recollect that that same stress of necessity has forced the most highly civilized and cultured of our own day, under sufficient stress of circumstances, to the point of killing and eating their fellows. Let no man rush to swift condemnation, until he has placed himself in the culprit's place in so far that he can realize the latter's motives and temptations.

Differences in religious belief were, until quite recent times, held to justify legal murder, and this was pushed so far as to occasion the publication of treatises that proffered explanations of the cruelty of the priesthood. Wars offer the most striking examples of legalized homicide to-day, and when we see Italian and Turk rushing to slay each other, and reports creep out of the wholesale sacrifice of women and children as the lust of slaughter breaks loose, we ask whether our civilization is at best more than a very thin veneer, covering the abyss of brutality, as the earth's crust covers the internal chaos.

Beyond the instances in which human life may be taken legally, there lies a debatable ground where public sentiment rules, interpreting, modifying, twisting, perverting, and defying the statute law in accordance with popular feeling. The unwritten law justifies the destroyer of woman's honor and disrupter of families. Self-defence is an elastic plea. The heroic names revered by mankind and held up to the emulation of youth are mostly those of murderers, that is, of those who have taken human life illegally, even though heroically. Tell killed Gessler by what was legally a murder. Harmodius and Aristogeiton were no better—legally. Sevagee founded the Mahratta State on the murder of the trusting Afzool Khan. Either Brutus or Scaevola—nearly every notable saver of his country—could have been convicted and executed under the law. Holy Writ affords many examples, such as the assassination of Sisera by Jael under peculiarly atrocious circumstances.

Coming down to the case of the Shakers, it is evident that only condemnation must be the verdict. Who is to render the decision that any disease is incurable or voluntary death justifiable? No law, no creed, places such power in the hands of any human being. It is but a sophism that pleads the existence of a superstitious veneration for life, and ignores the certainty of death within a brief period. Life comes unsought, and its extinction may well be regarded as beyond the privilege even of its possessor.

But come down to particulars: A doctor found himself dying of gastric cancer. Every conscious moment was one of unbearable agony. The diagnosis was certain; the highest authorities of the day had so pronounced, and expressly decided that no remedy was to be had. Life was only possible while consciousness was extinguished by drugs, so the man made the temporary unconsciousness permanent by a lethal dose.

Do you blame him?

Still worse—suppose you sit by the bed where lies the wife of your youth, dying by inches in the tortures of disseminated, inoperable cancer; life rendered bearable only by morphine narcosis; death inevitable when agony had worn out vitality. What then?

Even so, the path of duty leads not to euthanasia, but only to renewed effort in the search for means of cure. The atrocious tortures of cancer, the long-drawn-out death by inches of the tuberculous, the ghastly disfigurements of lupus and leprosy, the swift and deadly stroke of Azrael's sword, ycleped croup, meningitis or eclampsia should arouse in us the determination to tackle anew the task of unravelling their mysteries and developing their remedies.

Voluntary death may stop the pangs of the afflicted, but it leads to nothing. It is sterile as well as cowardly. Nothing hopeful is yielded by it, in the way of preventing the evil in others, or finding a cure. But the greater the horror men feel for the disease, the more powerfully they will be impelled to seek for relief. This is the vital objection to euthanasia, and not the stopping of a life for which no hope remains. To put an end to a life of torment, a life impossible except with unconscious-

ness, is merciful; and the welcome sacrifice of a few useless, meaningless days of agony does not weigh against the call of mercy.

In due time we shall see some man who, suffering with the pangs of cancer, or still more atrociously tortured by the sight of his loved ones similarly afflicted, will bend all his energies to the solving of this problem. He will gather the scattered threads, collate the pathologic investigations, group the hypotheses and the proposed remedies, and proceed to eliminate the false leads, until by exclusion he must arrive at the one true path.

He who does this will soon find promising material. He will see by the Chicago observations that people who consume meats in conglomerate form—sausage, canned hashes, which allow utilization of qualities unsalable in natural form—are enormously more prone to cancer than those who live mainly on vegetables. He will meet the tomato, the cider, the tree-tumor, and many other hypotheses, each proffered with a show of plausibility. Some of these may have been definitely demolished, but the proof has never reached the body of the profession, much less the public; and these ghosts remain to perplex the searcher and distract his attention from the true path.

In the field of therapeutics the same thing presents itself, only infinitely more complicated. The red-clover, thuja, phytolacca advocates press their claims with the confidence of ignorance, confusing the matter by shifting the base and applying the term cancer to so many non-malignant conditions that they delude the public with a fair showing of cures and prevent any fair estimate of the real value of their remedies.

But the worst difficulty is the refusal of the profession to consider any remedy unless it is "new." They will rush tumultuously to apply the suggestion that the X-ray will cure cancer, before a solitary trial has been made, before we have learned what it is or what it can do, but they will refuse to listen to the evidence favoring condurangin or to consider the astonishing results of its use by really scientific practicians.

The only avenue for advance is by the process of exclusion. Remedies ponderable and imponderable, electricity in all its

forms, Coley's serum, Clay's turpentine emulsion, red clover, condurango, organic arsenic, crotalin, chromium, each, all and every one, should have due consideration, and be so completely tried out that no possible excuse remains for ever bringing them back, if found worthless. In this way alone can the remedy be found.

After all is said and done, the duty of the physician is to save life, not to take it, and until the last sighing gasp shows that the Great Mystery of existence is about to be solved the doctor's efforts should be directed toward relief, yes, and cure—for it may be his great privilege—yours—to bring those adjudged beyond hope back again to life.—*Am. Jour. of Clin. Med.*

News of the Month

SIMCOE HALL, ALLANDALE

Simcoe Hall, alias the Barbour Sanitarium, at Allandale, which has been in the course of erection on the Burton estate for some time, was formally opened a few weeks ago. The building is roughcast on the outside, with a spacious verandah in front overlooking the beautiful grounds. Grassy terraces slope down from the front of the house, with a magnificent fountain playing on the highest one. A picturesque trout pond, into which seven springs empty, has been laid out between the sanitarium and Burton Avenue, around which a winding road will lead to the eastern entrance. The large lawn surrounding the house is shaded by many fruit and shade trees.

The interior of the house is all finished with polished hardwood floors and white enamelled woodwork. The walls are covered with "sanitas" washable paper, of delicate tints. The furniture is the most serviceable mahogany.

On the ground floor is the large and beautifully decorated parlor, on one side of the hall, and the dining-room on the other side, also tastily decorated. The doctors' spacious office and dispensary, the serving room, kitchen, and cold storage room, filled with the most up-to-date appliances, are also on this floor. Perhaps one of the most interesting of the rooms is the bathroom, where all kinds of baths are administered, from the continuous bath in which the patient is kept for several days at a time to the "Scotch douche," which projects alternate hot and cold streams on the patient's back. Electrical treatment and electrical Turkish baths will also be given in this department.

On the second floor are the women's quarters. Some of the bedrooms are single, while others are in suites. From the front of the hall a door leads to the spacious balcony, from which can be had one of the finest views of Barrie and Kempenfeldt Bay that can be seen anywhere. At the south end of the building is

a large sun room, in which patients can sit and be comfortable while they watch a snowstorm outside. The third floor is similarly laid out for the men's quarters.

In the basement are the laundry, fitted with the most modern conveniences, billiard room and smoking room for the men, furnace room, and coal cellars. The heating is by steam and hot air, and to ensure perfect warmth in cold weather the furnace is one-third larger than necessary.

The sanitarium is for persons suffering from nervous troubles, such as nervous prostration or nervous breakdown. There will be accommodation for twenty-six persons, each of which will be under Dr. Barbour's personal supervision. The doctor's genial and courteous nature and his twenty-six years' experience in the work augurs well for the success of the institution. Dr. Ellis, a graduate of Toronto with several years' experience, is the house surgeon. A matron and three nurses will be in the building all the time. The other nurses will reside in a separate residence.

THE AMERICAN ASSOCIATION OF CLINICAL RESEARCH

The fourth annual meeting of the American Association of Clinical Research will be held in New York City, at the Academy of Medicine, on November 9, 1912.

The sessions will be held from 9 a.m. to 1 p.m., from 3 p.m. to 6 p.m., and from 8 p.m. to 10 p.m. The evening session will be open to the public.

Notable contributions on the negri bodies, on certain fluids for tubercle bacilli in the urine, on adjustment and function, on psychoanalysis and traumbedeutung, on a pandemic of malignant encapsulated throat coccus, on the single remedy, on indiacanuria and glycosuria, on disease conditions expressive of correct diagnosis, on biochemic problems, on the two most far-reaching discoveries in medicine, and others, are to be given. Every member of the association is cordially invited to contribute a paper. The title should be sent at once to the permanent secretary, so that the programme may be completed.

As soon as completed the programme will be mailed to you. Please make an effort not only to contribute a paper, but to be present at the coming meeting, to bring your friends, and to assist in the most important movement of medicine as represented in the aim of our association, the systematic, scientific investigation and advancement of medicine by conclusive clinical and clinically-allied methods.

Please invite your friends to become members. Your support and that of your friends will be cordially appreciated.

Please publish this information in the earliest issue of your journal.

THE CANADIAN MEDICAL ASSOCIATION

On account of our going to press for this issue earlier than usual, we will have to ask our readers to wait for the account of the meeting at Edmonton till October first, when we hope to report it at some length.

NEW HEALTH OFFICERS REPORT FOR DUTY

The eight newly-appointed officers for the health districts into which the province has been divided under the Public Health Act of last session reported to the Provincial Board of Health on Aug. 1. They came to Toronto to receive instructions preparatory to commencing active work.

The doctors were taken to the provincial laboratory and Prof. Amyot went over the new act with them, pointing out its essential features. Emphasis was laid upon the care which had to be exercised for protecting the public against contaminated water. Ottawa was held up as a conspicuous example of the necessity of this, and the provisions of the Act against the pollution of streams and lakes will be rigidly enforced.

Other subjects discussed were bacteriology, sewage, epidemi-

ology, and general hygiene. The regulations under the new act will also be gone over, and those affecting communicable diseases explained fully.

The new officers are Dr. Clinton, Belleville; Dr. Bentley, Sarnia; Dr. P. J. Maloney, Cornwall; Dr. W. E. George, Haileybury; Dr. R. E. Woodhouse, Fort William; Dr. Thomas McNally, Owen Sound; Dr. D. A. McLenan, Waterdown.

PERSONALS

Dr. A. C. Hendrick has returned from a three months' course at the Surgical and Gynecological Clinics of Great Britain.

Dr. H. A. Bruce returned from England on August 17th. The Wellesley Hospital was formally opened by H. R. H. the Duke of Connaught on August 26th, of which we will have more to say in our next issue.

Obituary

DR. LEPPER DIES IN BRITISH COLUMBIA

The death of Dr. Ambrose F. Lepper, a Toronto physician, was announced a few weeks ago by Mr. J. F. Shannon, treasurer of the Methodist Church, who received word from Rev. G. H. Raley, president of the British Columbia Conference, and chairman of the Port Simpson Circuit. Dr. Lepper was assistant at the hospital which has been established at Bella Bella, Rivers Inlet, B.C., under the auspices of the Methodist Church, for the benefit of the Indians and others who gather in the neighborhood at this season for the salmon fishing on account of the canneries which have been established nearby.

Intending to go to China as a medical missionary last year, Dr. Lepper left Toronto, but on account of the disturbances there his journey was postponed, and he spent some time with friends in the West. As the trouble caused by the republican uprising in the Celestial Kingdom continued, Dr. Lepper accepted the post of assistant doctor at Bella Bella early this year. This is the busy season at the hospital, and it is understood that quinsy was somewhat epidemic there, and attending to the sufferers, the missionary contracted the disease in its worst form and died.

DEATH OF DR. DANIEL MEAGHER

On Saturday afternoon, August 10th, Dr. Daniel Meagher, of Montreal, who had been spending the week with relatives at Kingston, was found dead in the residence of Mr. Charles Brophy of Wellington Street, with whom he had been staying. He went to Kingston a few days before to see his sister, Rev. Sister Mary of Loretto of the House of Providence. The doctor also visited the Brophy family at their summer house resort, Brophy's Point, Wolf Island. He returned to the city and went to the Brophy residence to spend the night alone. On Saturday afternoon Mr.

Brophy called at the house and found Dr. Meagher dead on the stairway. Dr. A. E. Ross, the Coroner, was called, and he pronounced death due to heart trouble.

Dr. Meagher was about 68 years of age. He was formerly of this city, having graduated at Queen's Medical College in 1867. For many years he was a resident of Montreal. He is survived by two sisters, Rev. Sister Mary of Loretto and Margaret Amanda, also by three brothers, Frederick, William and George. He was a brother of the late Meagher Brothers, John and Joseph, wholesale wine merchants of Montreal.

The Physician's Library

BOOK REVIEWS

The Care of the Skin and Hair. By Wm. Adam Pusey, A.M., E.M., D., Professor of Dermatology in the University of Gelenau. London: D. Appleton & Company. 1912.

The author has contributed to a more practical knowledge of the hygiene of the skin. In his concise explanations of common defects and admissible remedies, he appeals to more than professional intelligence. The immediate service of the book is its analysis of the many accidental diseases of the skin.

J. J. C.

Duodenal Ulcer. By B. G. A. Moynihan, M.S. (Lond.), F.R.C.S. Second edition. W. B. Saunders Co.

It is not a matter of surprise that this excellent work has rapidly gone into its second edition. After the publication of the first edition a great deal of criticism was aroused because of the sweeping manner in which the author sought to destroy ancient traditions, and it was with great interest that we read this new edition, to see whether criticism or longer experience had shaken the author in his earlier views. But we find the same bold handling of the subject, backed up by the demonstrated proofs on the operating table, the belief of the author only strengthened by the lapse of time. The statement is once more made that "hyperchlorhydria is the medical term for duodenal ulcer," and the regularity with which he had demonstrated the presence of the ulcer at operation, in cases where the symptoms ascribed to "hyperchlorhydria" are present, and in which physical signs of organic disease are absent, leaves no room for doubt that in the main Moynihan's contentions are correct. Notes of the history and progress following operations of three hundred and five cases are appended, and make a formidable defence against criticism. The recorded results, several years after

gastro-enterostomy and turning in of the ulcer, are most interesting, affording as they do excellent hope of relief from this distressing condition. The book is written in a most entertaining style, is well printed and illustrated, and can be recommended as a valuable addition to the library of every physician and surgeon. W. E. G.

A Text-Book of Gynecology. By WILLIAM SISSON GARDNER, M.D., Professor of Gynecology, College of Physicians and Surgeons, Baltimore, Md. With one hundred and thirty-eight illustrations in text. New York and London: D. Appleton & Company. 1912.

This is a very readable book. The style is simple; the subject matter presented without affectation of learning, so as to make the author's meaning easily understood. It is a student's manual, and is evidently intended for the use of students.

The author does not deal in descriptions of rare cases. His best efforts are given to the description of the more common diseases of the female organs of generation. Neither does he recommend many different kinds of treatment, but is satisfied with one—that one probably resorted to, and which has been found satisfactory in his own practice.

Several photographs of gross pathological specimens and photomicrographs of lesions used by the author in teaching diagnosis appear throughout the volume. The publishers' work is excellent. J. F. C.

The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. W. B. Saunders Co.

To those who have had the pleasure of attending the clinics of Dr. Murphy the present publication must come as a distinct disappointment. While everyone knows that Dr. Murphy is one of the greatest surgical teachers, there is no question that his success as a teacher is due almost wholly to his personality, to his ability to hold the attention of his students by his enthusiasm, and by his great skill as a painter of word-pictures. Without Murphy and without the patient the words of the teacher, although faithfully recorded by stenographers, have completely

lost that something which makes the clinic so interesting and instructive. We believe the publishers have made a mistake in attempting to transfer these clinics to print. W. E. G.

The Doctor's Factotum. A periodical presentation of matters of interest to the physician, both scientific and humorous. Published by the New York Pharmacal Association, Yonkers, N.Y.

The publishers of this booklet have recently gotten out several as clever pieces of advertising as we have seen for some time. They don't conceal the fact that it is advertising, pure and simple, but it is certainly "classy." A recent issue contains several well-written articles on "Food as Medicine," "Why Not Prescribe Creosote?" "Prodding Lazy Cells," "Phosphazon Briefs," "A Quintette of Efficiency," "Borolyptol Axioms," "Not Just as Good," and ending up with a humorous department. A copy of "The Doctor's Factotum" can be procured for the asking.

Syphilology and Venereal Diseases. By C. F. Marshall, M.D., M.Sc., F.R.C.S., Surgeon to the British Skin Hospital; late Assistant Surgeon to the Hospital for Diseases of the Skin, Blackfriars; formerly House Surgeon to the London Lock Hospital. Second edition. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1912.

The first edition was published in 1906, but so many changes have taken place since then that the whole subject required special consideration. After a very interesting history of syphilis, the author gives a general description of the disease, and then follows it from the initial lesion through the various systems and organs of the body. A fair share of attention is paid to hereditary syphilis. Plate I. shows the spirocheta pallida, gonococci and the various micro-organisms found in the normal urethra, while in the text there is a very clear description of methods of staining and demonstrating these organisms.

The serum diagnosis, Wassermann reaction and the arsenical treatment of syphilis, including "606," are quite up to date and fully described.

Gonorrhea receives careful treatment in some seven chapters.

The vaccine treatment receives the notice it deserves. We think this work the best we have read on venereal diseases, and bespeak for it a hearty reception by the profession.

Size, demy 8vo, 560 pages, 6 plates. Price, 10/6. J. J. W.

Gould and Pyle's Cyclopedia of Practical Medicine and Surgery, with particular reference to Diagnosis and Treatment. Second edition, revised and enlarged. Vol 1. Abasia. Jury West. By R. J. E. Scott, M.A., B.C.L., M.D., New York, with 653 illustrations. (Vol. 2 Kakke-Zoster). Price, $4.00 net.

The new and enlarged edition of Gould and Pyle's "Cyclopedia of Practical Medicine and Surgery" is a most creditable production. The editor is a man well known to many medical practitioners, with a good literary experience, and has devoted a considerable length of time to the work of revision.

The new edition has been increased materially in size and about 30 new names added to the list of contributors. The best point about the entire work is that the contributions are "short, sweet and to the point," and not long, tiresome dissertations that the busy man cannot be expected to wade through. The publishers are correct in describing the two volumes as "a working book, condensing all that is essential from a vast amount of literature and personal experience." Gould and Pyle's Cyclopedia of Practical Medicine and Surgery is a mighty good addition to any man's shelf of reference books. W. A. Y.

Golden Rules of Skin Practice. By David Walsh, M.D., Edin.; Senior Physician, Western Skin Hospital, London W.; Author of "The Roentgen Rays in Medical Work," "The Hair and Its Diseases," etc. "Golden Rules Series," No. VIII., fourth edition, revised and enlarged. Bristol: John Wright & Sons, Ltd. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd.

This little work will be found very useful inasmuch as it is revised and up to date and of a size easily carried in the vest pocket. Size 4 in. by $2\frac{3}{4}$ by $\frac{3}{8}$ in. The essentials of all the skin affections one usually meets are found here, with many useful hints on diagnosis and management. J. J. W.

First Aid. By Sir John Collie, Kt., M.D., Aberdeen, and C. F. Wightman, F.R.C.S., England. 6th Edition. Copyright. London: Geo. Gill & Sons, Ltd., 13 Warwick Lane, E.C.

The sixth edition has been rewritten, the author having found that such was really necessary owing to the advances being made in ambulance work. He introduces for the first time the roller bandages as being more efficient than the old triangular bandage. A chapter has been added also on Voluntary Aid Detachment Work.

Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) for 1911. Octavo of 603 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $5.50 net. Sole Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

To Canadian physicians St. Mary's Hospital at Rochester, Minn., is so well know, that a volume, composed of all of the papers read by different members of the staff up to January of the current year, cannot but be of the greatest of interest. The volume covers nearly six hundred pages, and is made up of papers on The Alimentary Canal, Hernia, The Genito-Urinary Organs, The Ductless Glands, Thorax and Extremities, Technic, and papers on general subjects. The book is full of the most original matter and is not what too many volumes really represent, viz., a rehash of what is already in print. It is worth buying.

W. A. Y.

Official Automobile Road Guide of Canada, with map of routes. Authorized by the Ontario Motor League, 1912. Edited by James Miln, Toronto. Sixth edition. The Miln-Bingham Printing Company, Limited, Toronto.

To the motorist, whether he be a physician or a layman, a book such as this is well nigh indispensable. Especially useful will it be found by medical men, whose holiday has too frequently to be taken "a day at a time," a motor trip, say, round Lake Simcoe or elsewhere, from which he gets back in 24 or 48 hours. The Official Road Guide is a "multum in parvo," giving routes

all over Canada, the best roads to be followed, a number of maps, etc. It is worth the price, get it. W. A. Y.

Improvised Methods of Aid in the Field. By H. MacKay, M.D., Assistant Director of Medical Services Wessex Division. Second Edition, with 2 diagrams and 81 illustrations. Eyre and Spottiswoode, Ltd., London, England. Price, one shilling and sixpence.

This is an exceedingly useful little book for any physician particularly interested in first aid work, and we would say to such a one, "Take it with you on your vacation or to autumn camps. It will pass an hour or two away very pleasantly."

GRAPE JUICE AS A DIET *

In the critical period of recuperation from disease and tissue waste a rich yet easily assimilable food is essential. As a liquid food has many advantages, most diets for the sick consist largely of milk. Especially at this season of the year the profession will find Smith's Grape Juice a splendid substitute for milk. In many cases, like milk, this particular brand of grape juice supplies the system with the largest amount of vitality and force. Some people, of course, have a distaste for milk. For such patients Smith's Grape Juice offers a palatable substitute. Many patients suffer from an abnormal condition of the stomach, and find it difficult to retain milk, due to the fact that milk albumenoids coagulate in hard, compact curds. It will be found that when the weakened stomach rejects all other liquid foods it almost invariably retains Grape Juice. In order to tempt the listless and to foster the capricious appetite of the convalescent is frequently half the battle in nursing. Smith's Grape Juice is not only a grateful food, appealing to both the palate and the eye, but is also one which admits of much dainty variety of preparation, at a time when the dietary is only too limited.

*Publisher's Department.

Conditions of Malnutrition

are exceedingly common among children and in their treatment a prescribed dietary becomes all important. Drugs occupy but small place in the problem of treatment.

A simple and generally uniform diet is indicated covering food of right nutritive value, easily digested and promptly assimilated ; for digestive symptoms, if not constant, are readily excited.

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Grape Nuts

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Long baking (from 12 to 16 hours) under thoroughly sanitary conditions, and the action of the diastase of the barley in the presence of heat and moisture, result in the conversion of a large portion of the starchy ingredients.

These processes of the manufacture of Grape-Nuts parallel, to a degree, the functions of the human digestive organs and produce a food well on its way to complete digestion.

The ***Clinical Record*** for Physician's bedside use sent, prepaid, to any Physician or Nurse who has not already received one. Also a box of samples of Postum, Grape-Nuts and Post Toasties.

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WATERBURY SPECIALTIES

THE three great specialties put out by the Waterbury Chemical Company are meeting with elegant results throughout the entire world. The Waterbury Chemical Company to-day is one of the largest exporters of pharmaceutical products in America. Their Metabolized Cod Liver Oil Compound is a preparation obtained from the action of the ferments on pure Norwegian Cod Liver Oil. This preparation has been thoroughly introduced in Canada within the past several years. Their second great specialty—Asparagus Compound—is a diuretic, made from very carefully selected stock of the green drugs, combining in four equal parts Asparagus, Corn Silk, Triticum Repens, and Kava Kava. It is an aqueous preparation, to which is added two and one-half grains Sodium Salicylate and two and one-half Potassium Acetate. This product, the manufacturers believe, is one of the most effective diuretics that it is possible to obtain.

Now the third specialty that is meeting with wonderful results is Pinozyme, Pineapple Enzymes. Any physician who has not become familiar with these three preparations, Waterbury's Metabolized Cod Liver Oil Preparation, Waterbury's Asparagus Compound, and Waterbury's Pinozyme, can procure samples upon request.

A visit on the part of members of the profession to the Canadian Laboratories of the Waterbury Chemical Co., 34 Beverley Street, Toronto, is welcomed by the firm. From this address, all Canadian business is carried on under the direction of the Manager for the Dominion, Mr. McNeal, a gentleman who knows the meaning of the word "courtesy," and who is always glad to see physicians. The laboratory is conducted on scientific principles and business-like methods, the entire plant being in every respect up-to-date.

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THERE is no mystery in the drugs used in Bannerman's Intravenous Medication. In fact, they are used by physicians in their every-day practice, the only difference being that the drugs in Bannerman's Intravenous Solution have been especially treated before being compounded—the poisonous properties of the drugs being removed, leaving the curative and healing.

There is no mystery in the results obtained with Bannerman's Intravenous Solution. Both the physician and the patient can readily see what great benefits are being obtained by its use

There is no mystery in the results that are obtained internally by the use of Bannerman's Intravenous Solution, inasmuch as the results can be verified through urinary examination, blood examination and by means of the microscope.

Due to the fact that we can fall back on our chemical and microscopical tests in the verification of results, Bannerman's Intravenous Solution is becoming widely popular; employed because of the results brought by this method, which have been almost startling in character.

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DYSMENORRHEA

FEW remedies employed in the treatment of diseases of women have gained the commendation of so excellent an authority as Dr. H. Marion Sims, who was called the father of gynecology, who said (Vol. 2, Grailly Hewitt, on "Diseases of Women"), "for severe dysmenorrhea, I have found Hayden's Viburnum Compound of great service." Like expressions since the time of Sims have been uttered by many of the best men in the medical profession.

Viburnum Compound (Hayden's)* has stood the test of time for twenty-six years and is the recognized standard Viburnum Compound.

In the treatment of dysmenorrhea whether of congestive, neuralgic or membranous type, this valuable preparation acts most promptly and effectively. In menorrhagia where the flow is excessive as a result of any one of the several causes, it affords relief by imparting tone to the uterus and stimulating its contraction. Abundant clinical evidence has conclusively proven that it is as effective as ergot without possessing the narcotic and objectionable properties of that drug.

In obstetrical cases, Viburnum Compound (Hayden's) is of particular service. It modifies the pangs of childbirth by its soothing effect upon the nervous system, and by its anti-spasmodic action upon the uterus, making it particularly serviceable in cases of rigid os. On account of its great value and high reputation Viburnum Compound (Hayden's) is extensively imitated, all of the imitations that we have seen being of comparatively little worth. Only when the original Viburnum Compound (Hayden's) is specified can definite therapeutic results be assured.

PROFESSIONAL MEN AND FURS

PERHAPS the most sensible argument in favor of professional men wearing furs is the amount of genuine comfort and good appearance to be derived from them. Apply this particularly to the doctor, who is exposed to all kinds of weather and at any hour of the night or day. Then, a weaker argument, and yet a most important one, is the appearance of a good fur or fur-lined coat. A doctor, especially, whose work lies almost exclusively among the homes and not the business part of the community, counts more on his appearance than the ordinary business man. A good fur garment is an investment, whilst a poor or cheap one is a constant source of trouble and expense. In buying furs it is always good sense to consider the maker. Someone has said: "Your furrier should be like your doctor—a man of reputation." There is no profession among which we have more friends than medicine, and we honestly believe there is no business man on which the doctor is more dependent than the furrier. Our registered trade mark, "The House of Quality," represents one of the strongest principles on which the house is built, and, backed by the statement that "We make everything we sell and guarantee everything we make," should mean every assurance to the customer of good value and fair treatment. Fairweathers, Limited, 84-86 Yonge Street, Toronto.

* New York Pharmaceutical Co., Bedford Springs, Mass.

Mulford's Antitoxin and the New Syringe

Every dose furnished in this Perfected Syringe

ADVANTAGES OF NEW SYRINGE: ASEPSIS, contamination impossible.

POSITIVE WORKING: The metal plunger screws into the rubber plug, adjusting pressure and making action positive.

Metal finger-rest with rubber guard at top of syringe prevents any possibility of syringe breaking or injuring operator's hand.

Needle attached with flexible rubber joint permits motion of patient without danger of tearing the skin—a great advantage in administering to children.

Our new adjustable rubber packing possesses great advantages; it is readily sterilized, does not harden, shred, absorb serum or become pulpy.

Simplicity and accuracy—no parts to get out of order.

Mulford's Antitoxin is Accepted Everywhere as THE STANDARD

The higher potency enables us to use much smaller syringes. Minimum bulk—maximum therapeutic results

BROCHURES AND WORKING BULLETINS SENT UPON REQUEST

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GONOSAN IN CYSTITIS AND GONORRHEA

The *Post Graduate,* 1907, p. 1242, says:

"Neisser's own experience leads him to prefer Gonosan, and the solution of the burning question with regard to the internal treatment of gonorrhea is very effectively aided by the testimonial from one who must be regarded as a discoverer and leader in the domain of the pathology and therapeutics of this disease, and this opinion may be added to that announced by over one hundred physicians with regard to the value of Gonosan, the consensus of which is that Gonosan alleviates the severe burning pain and the severe erections." "In vesical irritation Gonosan acts as a sedative to the nerves of the bladder and at once relieves the annoying dysuria." "It prevents an extension to the inflammatory process to the posteria urethra." "Gonosan is better tolerated than any other of the balsamics. It does not disturb the stomach, it is taken without objection, it is not nauseating, and does not produce renal irritation."

According to Bandler (*Medical Gynecology,* p. 288, 1909), "the fluid extract of Kava-Kava, half dram three times a day, is highly comforting, especially in gonorrheal cystitis. In the latter stages we may use t. i. d. Gonosan capsules which contain 20 per cent. of Kava, and 80 per cent. of sandalwood oil." In another place he says: "Gonosan is an oleaginous substance soluble in ether, alcohol, or chloroform. It is the active principle of Kava-Kava dissolved in sandalwood oil. Kava renders mucous membranes ischemic and anesthetic. It lessens secretion, checks the growth of gonococci, is a diuretic, and prevents pain," p. 396.

Gonosan is supplied by Henry A. Rowland, Toronto, Ontario; Canadian agent for Riedel & Co., of London England, and Berlin, Germany, and who will be pleased to submit samples of their products for clinical tests. He will also furnish physicians wth very handy pads with instructions for patients suffering from gonorrhea which are very complete, though being brief, and contain no advertising matter. Write to him to-day.

SELF-HELP IN PHOTOGRAPHY

UNDER the above title a fascinating little booklet has just been issued by Burroughs, Wellcome & Co., containing much useful information on the art, and even upon the science, of the camera. The folly of doing one's photography vicariously is insisted upon, and the simple and satisfactory methods of development, etc., which have been worked out by means of "Tabloid" Photographic Chemicals are graphically described. The tale of the tank and all that it stands for is told once more, and told in a way which convinces the reader that not by observation only, but by calculation also, he may attain to well-developed negatives. The problem of exposure, always a knotty one, is laid bare, and helps and hints on printing out paper, toning gaslight and bromide prints, getting warm tones by development, and many other matters, are scattered through the well illustrated pages.

Sanatogen in Surgery

Feeding Before and After Operation

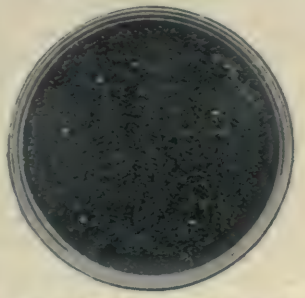
The success of operation depends, among other conditions, on the mental and physical fitness of the patient for the ordeal which he must undergo. A debilitated patient is "fed up" preparatory to operation; an endeavor is made to *raise the nutrition of his tissues to a high level*, to bring up his nervous energy to the point of maximum power, to ensure that his *metabolism is equal to the strain of repair involved in convalescence after operation.*

Metabolism Maintained

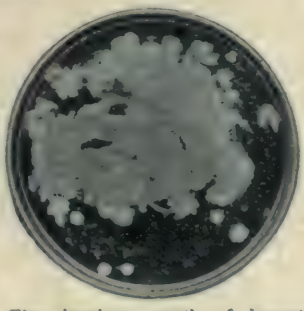
Clinical experience proclaims the unique success of *Sanatogen* in achieving these results. Sanatogen is a protein susceptible of easy assimilation, and it contains within itself the nerve food—Phosphorus—in a form which the nerve structures can utilize. *Sanatogen is, therefore, eminently adapted as a constituent of the diet during the period when patients are prepared for operation.*

In operations on the TONGUE, JAWS AND STOMACH, the dietetic prepafations are of exceptional importance, because it is essential that the AREA OF OPERATION SHOULD BE ASEPTIC. Only sterilized food can be permitted for some days before operation. In this regard, also, the claims of Sanatogen are extremely great, because it is ABSOLUTELY FREE FROM PATHOGENIC BACTERIA.

Attempts have been made to cultivate organisms from Sanatogen on various nutrient media, under various conditions. Dr. Klopstock (*Zeitschrift für diätetische und physikalische Therapie*, B2.5., 1904-1905) records 150 investigations made with 23 different packets of Sanatogen. It was found that after 5 days' cultivation 10 SAMPLES WERE ABSOLUTELY STERILE; the others showed a few colonies, some as low as 3, but 12 was the maximum, and these were of a perfectly harmless character.



The very slight growth of bacteria obtained from a bouillon culture of Sanatogen transferred to an agar plate, proving the preparation to be practically sterile.



The abundant growth of bacteria obtained from ordinary casein treated in the same manner.

Experiments carried out by Professor Dr. Schuetze, of the Bacteriological Chemical Laboratory of Moabit Hospital, Berlin.

A Sterile Food

This substantiates the claim for Sanatogen as a sterile food, when required before operation.

Its sterility is again an especial recommendation *after* operations on the mouth or stomach. The bacteriological comparison of Sanatogen with Casein, the basis of all similar preparations, demonstrates the overwhelming superiority of Sanatogen in the matter of practical sterility.

The sterility of Sanatogen has been the subject of bacteriological test in all the stages of its manufacture, and the most searching experiments have shown that bacterial contamination is scrupulously eliminated throughout.

GASTROCOLOPTOSIS

THORKILD ROVSING, Copenhagen, Denmark (*Journal A. M. A.*, August 3), says that the majority of surgeons in Europe, and almost the entire medical world, have no comprehension of the enormous pathologic significance of gastrocoloptosis and the therapeutic problems it presents. He rejects Glenard's and Stiller's theories of its causation, or at least does not accept them without reservations. The enormously greater frequency of the disease in women cannot be thus explained and he finds it accounted for in most cases by the misuse of corsets and lacings or the changes induced in intra-abdominal pressure by pregnancy and childbirth. The rare cases of gastrocoloptosis occur in men with feeble bone and muscle structure and then usually after the use of tightly buckled belts. We must also, he says, abandon the idea of degenerative general asthenia as the cause of constipation, cardialgia, nervous symptoms, etc., as caused by such, and we would naturally seek to explain them as due to the ptosis itself. He divides gastrocoloptosis into two classes—virginal and maternal. The former is the one seen after puberty, when the previously healthy individual begins to suffer from constipation, nervous headaches, capricious appetite, and later from cardialgia in the form of severe pains occurring on the left side immediately after eating, often with vomiting of the food. Later, nervous symptoms develop in many cases, and irregular menstruation also occurs. He describes the mechanism of the etiology of the disorder at length, which explains the symptoms. The diagnosis is not difficult to an experienced person but presents many difficulties to an inexperienced one. The predominant symptoms naturally suggest gastric ulcer, the more so since the vomitus often shows streaks of blood. The differentiation from ulcer is as a rule easily made by the location of the pain on the left side, the quality of the food not being usually connected with it, but the quantity, on the other hand, more directly its cause. And the fact that the pains are more frequently abolished by confinement to bed but are always worse with the erect position is also important in diagnosis. The improvement by rest in bed also distinguishes it from colitis. The differentiation from hysteria is not difficult by physical examination and the x-ray and the lack of the real hysterical stigmata. There may be trouble in swallowing from stretching the esophagus and the changes thus induced, and the foldings or the creasing of the stomach may in time cause secondary ulcer. In a few cases an hourglass stomach may develop, as has been observed by Rovsing. Maternal gastrocoloptosis is often unattended by the cardialgia and vomiting and in it the constipation and consequent auto-intoxication are the dominant features. In a certain number of slight cases, especially with women who do not need to work, confinement to bed with good nutrition and fattening food may lead to an improvement and make life endurable. In cases that come to the surgeon the question is, whether bandage treatment or operation is necessary. In the maternal form the bandage will give good results in the majority of cases, but this is quite exceptional in virginal cases, where the abdominal walls are strong, and would call for a pressure that would be unendurable. Here even the best form of supporter is ineffective, and in these cases, and in cases of the maternal type where the transverse colon has fallen into the pelvis, the only help is in an operation which will raise the stomach and colon into their proper places. Rovsing has given up the indirect methods of Stengel,

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IODEX is entirely free from Solvents, such as Alkaline Iodides, Alcohol or Glycerine.

IODEX is absorbed with great rapidity and does not stain or irritate the skin.

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Rheumatism, Gout, Swollen Joints, Syphilis, Ringworm, Enlarged Glands and all Inflammatory Conditions. In Pots, price 35 cents.

LAXOL

(Castor Oil Made Palatable)

LAXOL is the finest Castor Oil freed from nauseous taste and smell

LAXOL is not an emulsion or a diluted Castor Oil, but exhibits its therapeutic qualities unimpaired.

LAXOL is very pleasant to take and is entirely acceptable to the most fastidious. Children like it.

LAXOL does not gripe, and is valuable in Typhoid Fever, Diarrhoea Convulsions in Children, also Pregnancy and Childbirth. Dose same as Castor Oil. 3 oz. Bottles, 25 cents.

Samples and Literature sent on application.

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Doctor!

You are aware of the fact, of course, that
PURE WATER IS A NECESSITY.

For the sake of your patients, permit us to suggest that, when ordering water whether it be for flushing the kidneys, stimulating a sluggish liver or eliminating waste matter from the system, you specify

McLaughlin's Hygeia Distilled Water

It is as pure as the sunbeam. It contains no germs, no fungi, no lime, no alkali, no salts. It is just pure water. Doctors will be interested to know that we have now identified with our firm Wm. P. Kaufmann, M.D., C.M., Tor., Univ., a fully qualified medical practitioner who has full charge of our laboratory—We also boast of the finest bottling plant on the continent so that everything (including our bottles) is strictly hygienic.

Please remember the name of our distilled water, **Hygeia.**

J. J. McLAUGHLIN, Limited
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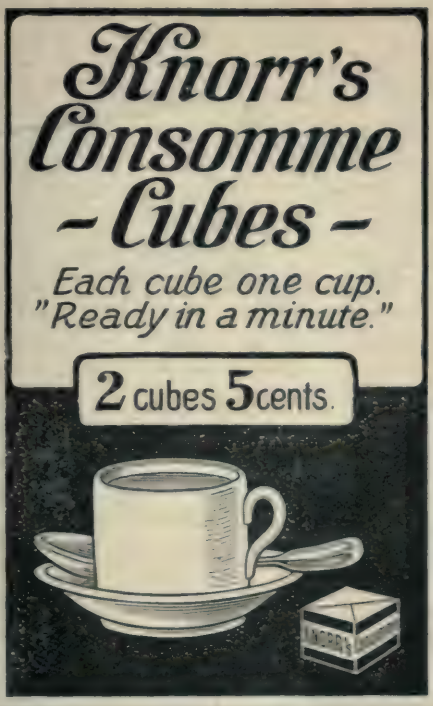
Beyea and Coffey and uses direct gastropexy instead. He describes his technic and gives statistics of his results. Since 1897 he has performed the operation 163 times and obtained information from other Scandinavian surgeons of ninety-three other cases performed by his method. All these have been carefully traced, showing 63.2 per cent. of complete cures, 19.8 per cent. of more or less improvement, and only 4.0 per cent. of deaths, not all of which could be properly attributed to the operation. He analyzes the causes of the imperfect results in some cases. Some of these have seemed due to certain imperfections of the methods in the earlier operations, some to imperfect diagnosis, and in some cases to the lacing, etc., which originally caused the disorder. The narrowing of the thorax may be so great as to render replacement of the dislocated liver and stomach impossible. In this fortunately small group of cases we have, according to his experience, the real indication for Arbuthnot Lane's "shortening" by ileosigmoidostomy, which he has employed in two otherwise desperate cases. The view maintained by some that the only operation for gastroptosis is gastroenterostomy is rejected by the author, who claims that it greatly aggravates the conditions. He deplores the too general neglect of surgery in these cases who wander from doctor to doctor and treatment to treatment without relief. If physicians could have their eyes opened to the real nature and diagnosis and treatment of these conditions a vast amount of suffering could be relieved.

"ACADEMY OF MEDICINE" MILK

It is worthy of note that the proprietors of Price's Dairy, Toronto, were the first firm of milk dealers to receive permission to use the seal of The Academy of Medicine, Toronto. This means that the milk of this concern, as supplied to the Toronto public, was found to be fully up to the standard as laid down by the Academy of Medicine Milk Commission. This is certainly an endorsement of no mean order, and should satisfy the medical profession that milk as bottled by Erindale Farm (Price & Sons) is clean, rich, and free from the semblance of adulteration.

THE AFTER-TREATMENT OF CATARRHAL COLDS, ETC.

The various colds, "grippes" and catarrhs that afflict the respiratory mucous membranes during the winter months, are extremely likely to leave their traces upon the general systemic vitality, in the form of a greater or lesser degree of Anemia. This is especially true of those whose resistance is "below par," i.e., elderly people, young ill-nourished children, and weaklings from whatever cause. The constitutional after-treatment of respiratory disorders, among this class of patients, is usually more honored in the breach than in the observance. There can be no better routine practice than to order Pepto-Mangan (Gude) as a general tonic and reconstituent, especially when Anemia is apparent. This exceedingly pleasant and ferruginous reconstructive is so distinctly palatable as to render it generally acceptable to all patients, and is so entirely free from irritant properties as to insure its ready toleration without causing constipation or disturbance of digestion.



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RESINOL VERSUS ECZEMA

There is a difference of opinion among dermatologists as to the etiology of eczema. Whether or not it is a constitutional or local disease, all clinicians agree that the local treatment is the most important. The majority of physicians are of the opinion that

UNG. RESINOL

yields bet r results than any other ointment used in overcoming eczema, because,—

1. IT IMMEDIATELY ALLAYS ITCHING,
2. IT REDUCES INFLAMMATION,
3. IT EFFECTS RESOLUTION.

UNG. RESINOL cleans up the surface while internal medication is building up the general system. When the eczematous area is covered with crusts they should be removed with warm water and Resinol Soap. Then UNG. RESINOL should be applied on a piece of linen or muslin, covered by an ordinary bandage. The dressing should be renewed every six to twelve hours, according to the severity of the itching.

RESINOL Medicated SHAVING STICK

The physician, whose face is made tender by constant exposure, will find this soap unexcelled for shaving. It gives a creamy lather, is antiseptic, prevents infection and is insurance against skin troubles. Send for samples.

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THE ICE BAG IN APPENDICITIS

In a most interesting article by A. M. Fauntleroy, Surgeon of the United States Navy (*Medical Record*, Aug. 3, 1912), the fact is brought out, basing the same upon a large number of cases of appendicitis operated, that the ice bag is positively harmful in this condition. In 50% of the cases operated, where the ice bag was used, the condition seemed to indicate that there was a noticeable lack of effort on the part of nature to wall off, from the rest of the abdominal cavity, the appendix, which was frequently very much congested, gangrenous or perforated. He also observed that in the ice bag cases there was a surprisingly low white cell count when one took into consideration the condition found in the abdomen at the time of the operation. From 8,000 to 11,000 white cells was the rule in these ice bag cases when one would be justified in saying that the pathological condition warranted a constitutional reaction of from 20,000 to 30,000 leucocytes, or even higher.

On the other hand, in those cases in which the hot water bag or morphine had been used prior to operation (the ice bag not being used at all), the white count corresponded to what one would expect. Dr. Fauntleroy advances from his findings the logic that while the ice bag causes numbness, practically the same as in the condition of frostbitten ear or toe, it also decreases hyperemia, leucocytosis and stasis in the part to which it is applied. That heat is the direct antithesis of cold in encouraging favorable physiological action in inflammatory processes, whether superficial or peritoneal, seems to be from his report most logically and conclusively proven.

In applying heat whether it be for peritoneal or inflammatory conditions of a more superficial character, the most rational method is to use that which is not only sanitary, but, for the comfort of the patient does not require frequent changes. In this respect, antiphlogistine, on account of its heat retentive properties, its cleanliness, and its ease of application, should appeal to the professional mind. That antiphlogistine has proven of great therapeutic value as a thermic agent is best indicated by its extensive professional employment and its many advantages over the hot water bottle and other methods of application of heat is readily discernible.

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Is there anything quite so annoying to the busy doctor as to be held up by punctures? If so, quietly tell us, as we know of nothing so exasperating. One of the most effective means of preventing this form of "tire trouble" is to equip one's tires with Zip. What is it? It is a fluid, injected through the valve into the inner tube, and which, through gravity, lies always at the bottom, effectively and immediately sealing up a nail hole just as soon as the wheel has revolved once. It should be remembered that but a small quantity of Zip is injected into the tube, and that air still occupies five-sixths of the tube cavity, so that *the tires are still pneumatic. Zip does no harm whatever to the rubber.* Call and see for yourself at The Zip Sales Agency, Grand Opera House Block, Adelaide St. West, Toronto.

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POULTICES SHOULD BE STERILE

Prof. George Howard Hoxie, of the University of Kansas, in his most excellent book on "Symptomatic and Regional Therapeutics," states, under the heading of localized inflammation, that "the danger of infection should ever be in mind in applying a poultice, for the maceration incident to the poultice favors infection, even if in ordinary circumstances one might consider the area germ-proof."

Again he refers, under the chapter on Pain, to the dangers from using dirty poultices, and that skin affections have been added to the ordinary disorder when bread-and-milk or linseed poultices have been used to relieve pain.

It is thus noted how important, then, it is, in the employment of a poultice for the relief of pain and inflammation, that a sterile and trustworthy product be applied. Inasmuch as poultices are a means of producing hyperemia by the use of heat, and in so far as they do this better than by other means, it is interesting to observe that in the belief of Prof. Hoxie that "the clay poultices, known best in the form of Antiphlogistine, are the best to employ, as they are sterile and clean."

Antiphlogistine affords not only a safe, but clean, method of utilizing the advantages of hot moist heat in the treatment of pain or inflammatory conditions. It maintains heat in contact with the part for hours, and its adaptability is only secondary to its therapeutic value.

ECZEMA—SOME SPECIFIC CAUSES AND TREATMENT

BY E. J. WUNDERLICH, M.D., LOUISVILLE, KY.

To cure a parasitic disease we must kill the parasites which cause it. In eczema these are hidden in the superficial layers and covered by the scabby crusts. These latter can best be removed with warm water and resinol soap. This must be done as fast as they form. Then the remedy can be applied to the clean surface.

A multitude of remedies are used in this disease, but, in my experience, the balsams are by far the most satisfactory. Among these are several good preparations; the one which has given the best results in my hands is Resinol. In the great majority of cases the ointment of resinol is the only application necessary.

After the part has been cleansed, I apply it liberally to the raw surface and cover with a bandage; this is renewed two or three times a day. When the part is "weeping" very copiously, enough starch powder or calcined magnesia may be mixed with the ointment to form a very thick paste. This is used in the same manner as the ointment until the exudation ceases, when the pure ointment is used, or employ a dusting powder, composed of equal parts of starch, talcum, and subnitrate of bismuth, to be applied as frequently as may be necessary to absorb the moisture.

"in the employment of a poultice for the relief of pain and inflammation, it is most essential that a sterile and trustworthy product be applied.

"That skin affections have been added to the original disorder when bread-and-milk or linseed poultices have been used to relieve pain," as pointed out by Prof. George Howard Hoxie, emphasizes the employment of antiphlogistine, not only as a superior hot moist dressing, but as the doctor says, "because this is both sterile and clean."

That hot moist heat is, when properly applied, a most valuable factor in the treatment of inflammation, whether deep or superficial, is generally accepted and that antiphlogistine is the most adaptable and satisfactory method of realizing thermic value seems to be acknowledged by professional preferment."

FRACTURES AND DISLOCATIONS

W. DARRACH, New York (*Journal A. M. A.*, August 3), takes a rather conservative position as regards the open treatment of fractures. In the last two years out of 2,100 patients 104, or 5 per cent., have been operated on in the Roosevelt Hospital, and this he considers about a proper proportion. A satisfactory reduction does not necessarily mean a perfect anatomic alignment. He would define it as one in which the increase in range of motion and decrease in deformity to be gained by the open method do not warrant the risk of operation. He sums up his conclusions as follows: "1. Most fractures are best treated by the closed method. 2. Where a satisfactory reduction cannot be obtained and maintained by the closed method the fracture or dislocation should be treated by the open method, there being no other contra-indications. 3. If an open reduction is done as simple and as little foreign material should be left in as possible. 4. The decision to operate should be made before the eighteenth day, and earlier if possible. 5. In old cases it is often better to do a non-reducing operation. 6. The technic cannot be too exaggerated. 7. An open reduction is a serious operation. It should only be undertaken with clear indications and with the most favorable operating facilities and surroundings. 8. We must not forget also that the open method is not always successful."

INTERNAL PANCREATIC SECRETION

EXPERIMENTS on the internal secretion of the pancreas are reported by J. H. Pratt, Boston (*Journal A. M. A.*, August 3). He reviews the previous work on this subject and reports an experiment by Murphy and himself, in which they grafted the greater part of processus uncinatus of a dog into the spleen. After the extirpation of the remainder of the pancreas, which had been largely destroyed by an abscess, the dog lived six months without true diabetes, though his carbohydrate tolerance was greatly diminished. At the autopsy only a minute portion of the pancreatic tissue was found remaining. There were distinct well formed acini but no structures resembling islands of Langerhans. He concludes that this small collection of pancreatic cells produced an internal secretion preventing diabetes. Other experiments made by himself and Spooner seemed to indicate that the gland removed from the body does contain an internal secretion. He has increased the carbohydrate tolerance of the dog after atrophy of the gland by feeding with pig's pancreas. The theory that there is an internal secretion essential to carbohydrate metabolism is the only one that seems to explain these findings and results from feeding speak even more strongly against the neurogenic theory than do those of the organ-transplantations. Pratt thinks that too much has been claimed for the importance of the islands of Langerhans. The observations made by Murphy and himself clearly prove that the islands and the acini undergo progressive atrophy and destruction and that Weichselbaum's assertion that the islands never remain intact in any case of diabetes is incorrect. An interrelation of the various organs of internal secretion is probable and Pratt reports an observation in which he found the thyroids markedly altered in dogs with pancreatic insufficiency. He has also observed sexual infantilism in a dog with hypofunction of the pancreas.

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MAXILLARY SINUS

V. Loeb, St. Louis (*Journal A. M. A.*, August 3), says that the maxillary sinus has been studied from an anatomic standpoint by many men but few have attempted to accurately produce the sinus in some concrete form for observation. Some have determined the cubical capacity of several pairs of these sinuses, destroying the heads in thus doing so, but so far no report has been made in the literature as to the superficial area of the sinus. He describes his own method, which consisted in soaking the bone from three to five months in 3 per cent. solution of hydrochloric acid. They were then cut horizontally, after decalcification, into sections of about one inch thick with a very sharp mouth. The portion of the sinus lying in adjacent sections was filled with soft plaster-of-Paris, which when hardened was removed, and these casts were fastened together, making a complete mold of each sinus. The cubic capacity was then measured volumetrically by immersion in water, they having first received a coating of melted paraffin to prevent absorption. The right and left sinuses were found more or less symmetrical but varying more or less in size, and while those of the same head are similar they are different from those of any other head. The cubic contents vary in his specimens between 4.5 c.c. and 24.8 c.c. The superficial area was determined by using adhesive plaster. "A strip equaling 25 sq. c. (5x5) was placed with the adhesive part down, on a small plate of glass, without stretching. With a sharp knife pieces were cut and fitted on each cast until it was entirely covered, care being taken that the pieces did not overlap. It is safe to say that this method is not subject to an error of 2 per cent.; in fact, it is more than likely that there is not more than 0.5 per cent. of error." The general average of all the sinuses thus measured was found to be 31.68 sq. cm. with a marked uniformity in the two sides. The extremes of the areas were found to be 12.1 and 52.3 sq. cm. It should be stated that the skulls used were all of adults obtained from the anatomic department of the St. Louis University. In no case was the history of the individual obtained.

MASSAGE IN ALL ITS BRANCHES

Mrs. Neil MacKinnon, who several months ago opened up a Massage Institution at No. 20 Walmer Road, has recently moved to 101 Kendall Ave. Mrs. MacKinnon has furnished her new house with every facility for the administration of baths of every description, massage in all its branches. Swedish movements, vibratory treatments, etc. No. 101 Kendall Ave. is an ideal building for an institution of this kind, being bright, cheery and attractive. Mrs. Neil MacKinnon is a Masseur of Scottish training, and understands her work in every detail. Her institution is conducted along scientific lines, and she invites physicians to call and see for themselves the facilities afforded for the treatment of patients. Only lady patients are taken. Mrs. MacKinnon's new institution will be ready for business on and after October 1st.

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In addition to the Clifton and Avondale models, which were exclusive models in 1912, the company is, this year, putting out a car called the Rockdale model, which will have the same high-class material and workmanship as is put into our other cars on which the Ohio Company has built up a world-wide reputation. This model will sell in Canada for $1,975.00, including standard equipment. Equipped complete with top, windshield and speedometer, the price would be $2,150.00.

We will also place on the market a six cylinder touring car, 138" wheel base. The motor will be 4⅛ x 5¼, T head. This car will sell in Canada for $3,650.00, complete. Doctor, call at the Ohio warerooms, cor. Yonge and Maitland Sts., Toronto, and see for yourself that what is claimed for this car is *fact, not talk.*

PARAKERATOSIS OSTRACEA (SCUTULARIS)

L. WEISS, New York (*Journal A. M. A.*, August 3), describes the processes of normal and pathologic cornification of the skin and reports a case of the parakeratosis scutularis of Unna, of which little has been reported in the literature up to the present time. He agrees with Unna that we have here an anomaly of cornification attacking the body in groups and combined with inflammatory phenomena which penetrate deeply and produce peculiarly formed cones. He differs from Unna, however, in not considering the infection microbic. He suggests the specific name "ostracea" as more descriptive of the appearance than "scutularis."

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THE PARATHYROID GLANDS

W. G. MacCallum, New York (*Journal A. M. A.*, August 3), describes the anatomy and the symptoms of disturbed function of the parathyroid glands. Recently he has been able to experimentally throw some light on the subject of the cause of the symptoms observed and prove that some change in the circulating blood must give rise to the hyperexcitability of the nerves. The chemical nature of this change in the blood is not known. It may be an active poison or it may be something that withdraws a moderating and quieting influence from the nerve-cells and leaves them in a hyperexcitable condition. Considerable attention has been given in this connection to the inorganic substances, such as calcium, etc., and the idea that the symptoms of tetany are caused by the withdrawal of calcium from the cells, leaving them hyperexcitable, is supported by some facts and not disproved by others. While we are as yet very imperfectly informed concerning these glands and we cannot say what metabolic process is responsible, there is much evidence that it produces or even consists in a disturbance in the metabolism of calcium which may well be the cause of the heightened nervous irritability. That the parathyroids control this is shown by the curative effects of injecting their extract or implanting them, and we must hope that in the near future we may be able to perfect this method so as to gain the mastery of the disease.

TUBERCULIN

H. L. Barnes, Wallum Lake, R. I. (*Journal A. M. A.*, August 3), reports the results of tuberculin treatment of 150 cases of pulmonary tuberculosis treated with tuberculin at the Rhode Island State Sanitarium during the five years from 1907 to 1912. The tuberculin was administered according to the method of Trudeau, an effort being made to develop tuberculin tolerance by gradually increasing doses. Slight general reaction occurred in 20 per cent. of cases. Fifty-six of the patients were given watery extract, forty were given old tuberculin, thirty-seven were given bacilli emulsion and the remainder bouillon filtrate. A portion of the patients did not take the treatment as long as advised, because they could not see any effects from it. In a few cases striking improvement occurred; equally striking cases occur under ordinary treatments, and on the whole the patients did neither better nor worse than patients not so treated. The cases were chosen from printed records without the names and care was taken throughout to avoid prejudice one way or the other. The average duration of sanitarium residence for the tuberculin treated patients was 11.1 months, against 5.1 months of those not thus treated, with whom they were compared. The author concludes: "While other observers using other methods of tuberculin administration and with more prolonged treatment may get different results, established by equally thorough statistics, this analysis furnishes no evidence that these 150 patients taken as a whole were influenced by the tuberculin treatment."

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Editorials

REMINISCENCES OF THE TORONTO EXHIBITION OF SEPTEMBER, 1892

After looking through the main building and some of the smaller ones in the Exhibition and experiencing more or less pleasure from the contemplation of objects of art or simpler manufacture, I found myself, about 6 p.m., moving towards the chief dining hall. Close to Harry Webb's dining rooms, at the Grand Stand, I noticed two men, dressed in Oriental costumes, standing near a tent. The tent was blackened with dust and age and many years ago might well have sheltered the remote ancestors of the proprietors in the Syrian deserts. No seats, chairs or benches were visible within it, on which a tired wanderer could repose, but simply a mound of earth about six feet long, three feet wide and three feet high, which might serve as a table or a sofa. No cooking utensils or stove were to be seen, so it might be conjectured, that, since their arrival in America, the

Arabs have renounced their aboriginal methods of cooking food and have taken their meals at the restaurants. A few Italian peddlers, who were selling fruit nearby, looked so like these Orientals in color of skin, eyes and in figure, that a suspicion entered my mind to the effect, that the Orientals might be just wandering Italians, striving to turn an honest penny by amusing the gullible Canadian public. Approaching the taller of the two men, a powerfully built man, wearing a red fez on his head and carrying a scimitar in his sash, I said, "Parlate voi Italiano, Signor?" (Do you speak Italian, sir?); but he looked at me and shook his head. His expression of ignorance was so unfeigned, that I concluded that he was no son of sunny Italy, and so tried him with French, the *passe-partout* of the East. No sooner did he hear me speaking French than the expression of his face changed. He became quite communicative, told me that he was a Syrian Arab, and a member of the Greek church. When asked about the Bedouin method of cooking, he said, that, among the Bedouin Arabs, all the work fell to the women, the men taking life easily and amusing themselves smoking their long pipes.

I asked him if it were true, as stated in the American papers, that the Arabs were quite terrified at leaving Chicago to come to Canada. He laughed at the idea, and his companion, a slender, beardless youngster, who told me that he was a Druse from Mount Lebanon, in Syria, said that in his country it was often very cold in winter, and that ice and snow were no strangers in the mountains of Lebanon. This

Druse was quite feminine looking, so much so that I thought it might be a case of a woman wearing male attire. When he spoke, however, the voice was masculine. The most interesting portion of the Druse's conversation was the extraordinary confirmation, which he gave, in a few simple words, of the religious indifference for which the Druses have always been remarkable.

The tall man had told me, very decidedly, that he was not a Maronite (Catholic Syrian), but a member of the Greek Church. The young Druse, however, informed me, with a smile, that he was a Maronite, when he lived with that people, a Moslem when with the Turks, and a Greek Christian when living with members of that church. J. J. C.

CANADIANS RESIDENT IN THE UNITED STATES

THROUGH the courtesy of Director Durand, of the Bureau of the Census, Department of Commerce and Labor, we have received statistics showing the distribution of the foreign born, white population, according to country of birth, for the forty-eight States of the United States, and also for the principal cities in each State, as shown by the returns of the Thirteenth Decennial Census, taken as of April 15, 1910. As some of the information presented in this statistic is peculiarly interesting to the people of this country, we have separated the returns of Canadians from the other foreign born residents of the United States,

and, after making the required calculations, hereby present the Canadian returns and some inferences founded thereon. We notice that Canadians resident in the United States are divided, for the purposes of the census, into two classes, denominated respectively "Canada-French" and "Canada-Other."

We find that the "Canada-French" population of the United States numbers 384,567, the "Canada-Other" population 807,230—a total Canadian population resident in the United States of 1,191,797. According to the census of 1900, the "Canada-French" population of the United States was 395,427, the "Canada-Other" was 787,798—a total of 1,183,-225. These figures show for the ten years (1900-1910) an increase of 8,572. In enumerating separately the numbers of the two factors of the Canadian population of the United States, according to the census of 1900 and the census of 1910, we notice that there has been a decrease in the "Canada-French" population of the United States amounting to 10,860, while there has been an increase of the "Canada-Other" population amounting to 19,432.

We find that by far the largest "Canada-French" population in any of the States is found in Massachusetts, amounting to 134,460. Of this total, 15,281 reside in Fall River, 12,269 in Lowell, 4,988 in Worcester, 3,098 in Boston, 1,445 in Cambridge. However, excepting in Boston, the "Canada-French" population of the Massachusetts cities is less in 1910 than in 1900. The second large "Canada-French" population is in New Hampshire, viz., 40,752. The

third is in Maine, viz., 34,984; the fourth is in Rhode Island, viz., 34,043. Louisiana, once a colony of France, has a "Canada-French" population of but 250, of whom 101 reside in the city of New Orleans. In Georgia, another southern state, there are but 70 "Canada-French"; in Kentucky, 98; in Tennessee, 91; in Alabama, 96. One might argue from the paucity of these last returns that the French-Canadian emigrant to the United States does not look for a subtropical climate and that he prefers the northern zone. This inference is probably exact; but it does not explain the small "Canada-French" population of Delaware, viz., 63.

* * * * * *

A considerable "Canada-Other" population, viz., 160,712, is found in Massachusetts. This may be partly distributed as follows: 47,038 in Boston, 8,437 in Cambridge, 4,043 in Lowell, 3,663 in Worcester, 961 in Fall River. Michigan holds the second largest "Canada-Other" population, viz., 142,713, 37,767 of whom are residents of Detroit, 2,992 of Grand Rapids. New York State holds the third largest "Canada-Other" population, viz., 97,829, of whom 23,181 reside in New York City, 11,383 in Manhattan borough, 2,097 in Bronx borough, 8,086 in Brooklyn borough, 1,039 in Queen's borough, 576 in Richmond borough.

* * * * * *

After these large figures in Massachusetts and New York the "Canada Other" populations fall away considerably in the other States, as for instance, 41,311 in California, 40,386 in Maine, 37,668 in

Illinois, 26,232 of whom reside in Chicago. The lowest levels are reached in Georgia, 711; North Carolina, 503; Delaware, 432; South Carolina, 239. Massachusetts holds the largest number of Canadians residing in the United States: 134,460 "Canada-French," 160,712 "Canada-Other"; total, 299,172, 25.1 per cent. of the Canadians resident in the United States.

J. J. C.

THE COMMITTEE OF THE ASSOCIATED FRATERNITIES FORMULATE THEIR VIEWS ON HOSPITAL MANAGEMENT

THE approaching opening of the new Toronto General Hospital, Queen's Park, throws on the real estate market the old Toronto General Hospital, on Gerrard Street East. What shall be done with it? The Associated Fraternities of Toronto step into the breach and tell us that the old hospital must not be sold, but should be maintained on its present site and conducted as a civic hospital by trustees appointed, in the whole, or a large majority of them, by the City Council.

The establishment of a civic hospital, maintained out of civic funds, is objectionable. An hospital may be established and maintained by an individual, or an association of individuals of similar tastes, and may properly receive, in recognition of the charitable work done, a subsidy from the municipality served. Such a course of action has been taken in Toronto, in reference to the Toronto General Hospital, St. Mich-

ael's Hospital, Grace Hospital, the Sick Children's Hospital. An hospital under the exclusive control of a City Council would be a sweet morsel for ward politicians, who would struggle to win places on the Board of Control, where they would exhibit their incompetence for the task. An hospital, to avoid loss and failure, must not be managed and controlled by men seeking their own glorification, but by self-denying persons, who devote time and considerable effort to the work, for small pay, often for none at all. Let the control and management of a civic hospital be thrown into the hurly-burly of civic strife, and then to the victors will belong the spoils—not economic management, and altruism, but self-glorification or the profitable placing of contracts.

But it will be said: Are not isolation hospitals carried on by municipalities in Ontario, and may not civic general hospitals be so carried on? The reply is in the negative. An isolation hospital falls under civic control, because its construction, control and management are set forth in the Ontario Public Health Act and form a considerable part of the duties of the local Board of Health. An isolation hospital in a large municipality is a necessity which the City Council is bound to create and to supervise, in the interest of the whole community. A Board of Trustees cannot be allowed to dictate in the management of contagious patients, who must all submit to the requirements of the Health Act, interpreted by a civic official, the Medical Health Officer. There is another good reason: even when blessed with wealth, parents

may be unable to provide true isolation at their own homes for the contagious sick, and, in the interests of other members of their families, as well as the general public, they may feel constrained to send their sick to a civic isolation hospital.

On the other hand, no one is constrained to send surgical cases or cases of non-contagious disease, such as rheumatism, bronchitis, pleuritis or neuralgia, to a general hospital. It is doubtless a matter of convenience to householders, particularly such as live in apartments, to have the expense and trouble of sick management taken off their hands and transferred to an hospital, but it is not a civic necessity.

The fraternities of Toronto find it very convenient to them to send their sick to hospitals in Toronto, where they annually spend $24,000 in this behalf. Why do they not show some business acumen, by starting an hospital and conducting it at their own expense? They would then have full representation on the Board of Management, and would, no doubt, be able to exhibit a model institution, according to their notions. Almost every patient would have a private room, with all the conveniences; no medical clinics would betray undesirable family histories; medical science would be tabooed. Attending physicians would be just the very humble servants of the noble fraternities, who would condescend to let them have their medical business. J. J. C.

POISONING BY WOOD ALCOHOL

A FEW weeks ago eleven Russians were killed and several others blinded near St. Lambert, Montreal, through drinking liquor made from or adulterated by wood alcohol. In the United States, in 1904, twenty-five men were killed and many blinded in one district of New York by the same means. Up to the time that wood alcohol was rendered palatable and odorless, this form of spirit could not be employed in liquors on account of its nauseous taste and unpleasant smell. When, however, an odorless product known as "Columbian spirits" was put on the market it soon entered into the adulteration of alcoholic beverages and into the preparation of some proprietary medicines, with occasionally disastrous results. Dr. Casey A. Wood, of Chicago, and the late Dr. Frank Buller, of Montreal, undertook investigations into the matter and published papers on the subject in the *Journal of the American Medical Association,* commencing Oct. 1, 1904. Wood alcohol is now conceded to be a poison dangerous to eyesight and life. It is employed in the adulteration of alcoholic beverages in certain parts of the States, the Legislature of New Jersey, only a few weeks ago, passing a law to forbid its use.

Physicians are not unanimous as to the harmfulness of alcohol, although the majority contend that its use is unnecessary and harmful. The medical profession, however, is everywhere agreed that if alcohol is drunk at all, that is should be of good

quality. That men can be found who, for the sake of gain, will deliberately endanger the lives of their fellow-men by selling poison, is almost beyond belief, and no punishment is too great for them. The adulteration of beverages or medicines by wood alcohol should be made a crime, punishable by the severest penalties. W. A. Y.

TORONTO'S POTABLE AND PALATABLE DRINKING WATER? ? ?

A DISCUSSION on drinking water is pertinent at the present time, a statement with which no doubt the inhabitants of Toronto will agree. Eastern Canada is not distinguished by a pure or even innocuous public water supply. Melancholy object-lessons on this point have been afforded too frequently in recent years in this part of the Dominion, Ottawa being the latest, and in some respects the most disastrous and instructive of these. The lesson to be learned from Ottawa, so far as is as yet known, is that *if civic authorities disregard obvious sanitary laws calamity will surely follow.* Now, with regard to Toronto itself. In the first place typhoid fever has been, and is now, more common by far here than should be the case. After tiresome and unnecessary delays, it was finally determined some few years ago to place the public water supply on a safe basis. Contracts were given out for a presumably sufficient and efficient filtration plant and sewage disposal works. The situation now, when both these should be working smoothly, seems to be that *the filtration plant is inade-*

quate, and that raw sewage is still being discharged into the lake. From the commencement of the construction of the filtration plant, hypochlorite has been used to safeguard the water. So far so good; but it must be borne in mind that after all hypochlorite is an emergency safeguard which, with efficient filtration, should not be required. The public have a right to expect that, with proper treatment and disposal of sewage, and with filtration, a potable and palatable drinking water should be supplied. When the taste of hypochlorite is so evident that it can be discerned easily in a strong infusion of tea, and when the fact that the watering of milk can be discovered by the self-same taste, the most plausible apologist cannot assert that the water is fit to drink. The point is not that hypochlorite is not a valuable agent for purifying water, but that its constant use should be unnecessary. In civilized Europe, and especially in Great Britain and Germany, typhoid fever has been practically abolished by ensuring a water supply free from dangerous germs. The conditions in these European countries are worse, in so far as overcrowding and the industrial situation is concerned, than in any part of Canada, and they are less favored by nature as to water supplies than Eastern Canada in general, or Toronto in particular. Therefore *it is a manifest blot on the fair fame of Toronto* and other Eastern cities, and *a distinct slur on the intelligence and energy of their civic authorities*, that typhoid fever cannot be eliminated therefrom as from European cities. *The time is approaching when the occurrence*

of an epidemic of typhoid fever will be regarded as a crime, for which civic authorities will be held responsible. The impression can hardly be avoided that the existing condition of Toronto's water supply is *due to mismanagement* or to a deplorable lack of judgment. *The people should insist* upon being supplied with a safe and palatable drinking water.

W. A. Y.

THE PARATYPHOID INFECTIONS

In all the epidemics of typhoid fever which have occurred in Eastern Canada during the past few years cases of gastro-intestinal affection have been extremely numerous. The last outbreak in Montreal was marked by the large number of cases which did not come within the category of true typhoid fever. In Ottawa, according to the most recent reports, although there were more than 1,000 cases which were reported as typhoid fever, the deaths amounted to less than fifty. Probably, then, many of these cases and of cases diagnosed as enteritis were really paratyphoid infections. A good deal of confusion exists with regard to the differentiation of the paratyphoid infection. The Germans class all food poisonings, that is, infections caused by bacillus paratyphosus A, bacillus paratyphosus B, bacillus suipestifer, and by the Gaertner bacillus as food poisonings. British authorities recognize only infections caused by B. paratyphosus A and B as paratyphoid infections while Indian army authorities, headed by Col. Firth

H.R.H. The Duke of Connaught opens The Wellesley Hospital, Toronto, on August 27, 1912. On the right are seen Sir William Mulock, Dr. Herbert Bruce, and Lieut.-Governor Gibson.

and many South African physicians, are of the opinion that the true paratyphoid fever is brought about only by infection with the A bacillus. Canadian authorities in general hold that in all epidemics of typhoid fever the safest plan is to class the intestinal disorders under enteric fever, and to take due precautions to prevent their spread. In the United States great interest is now being taken in the paratyphoid infections, and it is certain that our knowledge of these will be greatly increased in the near future. Recently it has been discovered that there are paratyphoid carriers, and a close study of the entire matter is extremely important, from the standpoint of preventive medicine.

THE OPENING OF THE "WELLESLEY HOSPITAL," TORONTO

THE architect's plans suggested a hospital splendid in construction and perfect in minute detail. The Reality, as it presented itself for inspection on August twenty-seventh, is a vision of beauty as to surroundings and furnishings, and almost everything that scientific genius has invented in the realm of surgical instrument and appliance is there to be found. To those who enter with life's hurt comes the healing, every room welcomes the sunshine and catches a faint ray of its gold and holds it to paint its walls. From the huge garden of growing flowers and plants, and the shadows of the big trees, nobody knows how old, the tints are stolen and woven into chintz to brighten the rooms and yet rest the eye, because of the harmony of tone. Provision is made for the days when pain is

past and perchance only weakness detains, in the beautiful rooms down stairs where every prospect pleases; from the dim shadowy corners of the window seats of the library in the house beautiful, the eye travels into the palm room with the high lights of its tall palms tinting in faint green its walls, and its huge windows merging into faintly colored glass of conventional design; green "wicker" chairs, billowy cushions everywhere give a touch of soothing comfort that might cause the most cantankerous old patient to exclaim "This way to heaven is heaven."

Every one invited to the opening was charmed to be present. His Royal Highness the Duke of Connaught arrived accompanied by the Princess Patricia. Grouped on the steps of the entrance were the Royal Party, His Lordship the Bishop of Toronto, and the attendant clergy. The dedication over, Sir William Mulock, the President, read a short address to His Royal Highness, to which the Duke replied briefly and fittingly and declared the hospital open.

Mother Nature gave her benediction, the one humanity most craves, the blessing of glorious sunlight.

"Sky so blue it made me wonder
If it's Heaven shining through
Earth to smiling 'way out yonder,
Sun so bright it dazzles you;
Birds a-singing, flowers a-flinging
All their fragrance on the breeze."

May the sunshine of prosperity ever attend the Founder of the hospital, and may each succeeding year in its history write large—Success.

W. A. Y.

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Editor:

J. J. Cassidy, M.D.

45 Bloor St. E., Toronto

Managing Editor:

W. A. Young, M.D., L.R.C.P., Lond.

145 College St., Toronto

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Dermatology:

D. King Smith, M.B., Tor., Toronto; Demonstrator in Pathology, Toronto General Hospital.

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Original Contributions

ADDRESS IN SURGERY *

BY ARTHUR E. GILES, M.D., B.SC., F.R.C.S.,

Surgeon to the Chelsea Hospital for Women; Gynecologist to the Prince of Wales' General Hospital, Tottenham, London.

THE first words of this address must give expression to the first thought that arose within me when I received from my old friend and house-surgeon, Dr. E. W. Allin, the message requesting me to deliver the Address in Surgery before this meeting of the Canadian Medical Association. This first thought was that it was the greatest compliment that had been paid to me, and subsequent reflection has only increased my appreciation of the honor.

Like an after-dinner speaker, I might attempt to disarm your criticism and make a preliminary bid for your indulgence by depreciating my worthiness and disparaging my oratorical abilities; but I think that it will be better policy, and I know that it will be better manners, to assume that you will be

> "To my faults a little blind,
> And to my virtues very kind,"

and to embark, without further preliminary, upon the subject of my address. You will not expect excursions into the domain of general surgery from one who for twenty years has worked in the more restricted field of one of its special departments; but the general surgeon and the gynecologist meet on the common ground of abdominal surgery; and as this theme fulfils the double condition of falling legitimately under the description of "an address in surgery," and also allowing me to speak on a subject with which I may claim some acquaintance, I will ask for your indulgent attention to some remarks on "The widening

* Delivered before the Canadian Medical Association at Edmonton, August 12th, 1912.

of the scope of abdominal surgery from life-saving to health-restoring operations."

It is interesting to recall the fact that abdominal surgery is only a little over a hundred years old; because, although various abdominal operations have been performed by heroic surgeons from the earliest times, it was the establishment upon a secure basis of the operation of ovariotomy that secured the proper recognition of abdominal surgery generally. The first successful ovariotomy was one of the triumphs of the New World, for it was performed by Ephraim McDowell, of Kentucky, in the year 1809. Naturally, this historical case did not by itself establish ovariotomy upon a secure basis; on the contrary, for many years there was much opposition and there were few cases. McDowell himself performed the operation only twelve times, with eight recoveries; and for the span of a generation the attitude of the profession was mainly one either of scepticism or of more or less thinly veiled disapproval. The next important advance was made by Charles Clay, of Manchester; his first successful ovariotomy was in 1842, and in all he operated on three hundred and ninety-five patients, with one hundred and one deaths, his mortality being thus about 25 per cent. Think of the courage that must have been required to persevere in the performance and the advocacy of an operation that was attended, at its best, with a mortality of 25 per cent. In 1861, Tyler Smith, speaking from the presidential chair of the Obstetrical Society of London, could utter these pessimistic words, "In the long run, I believe, the results cannot be favorable, either in general or special hospitals." Happily, Tyler Smith's gloomy forecast has not been fulfilled; and by way of illustration and commentary I may mention that at the Chelsea Hospital for Women during the twenty-five years, 1885 to 1910, eight hundred and forty-eight ovariotomies were performed, with forty-seven deaths, giving a mortality of 5.5 per cent.; and if we compare the beginning and the end of this period, we find that in the first five years there were seventy ovariotomies, with nine deaths, or 12.8 per cent.; whilst, in the last five years, there were two hundred and four ovariotomies, with seven deaths, or 3.4 per cent. The results in general hospitals, which at one time were deplorable according to our present standard, are now practically as good as in the

special hospitals. Comparing my own cases at the two hospitals with which I am connected, one a general and the other a special hospital, I find that at the Prince of Wales' General Hospital, Tottenham, I have had one hundred and forty-eight ovariotomies with five deaths, a mortality of 3.3 per cent.; whilst at the Chelsea Hospital for Women I have had one hundred and six ovariotomies with three deaths, or 2.8 per cent. Naturally, the later results are rather better than the earlier ones; the figures for the last ten years, from July, 1902, to July, 1912, for the two hospitals combined, work out at two hundred and twenty-three cases with five deaths, or 2.2 per cent.

It would take too long to enumerate the successive steps by which the mortality of ovariotomy was progressively lowered; nor can I here pay the tribute of recognition and praise to the brave and brilliant workers who, through good and evil report, persevered in perfecting the operation; it must suffice to recall that the three great factors that revolutionized the results of ovariotomy and laid the foundations of modern abdominal surgery, were, first, the discovery of chloroform anesthesia by Simpson; secondly, the perfection of technique, in which Spencer Wells played such a notable part; and thirdly, the introduction, by the genius of Pasteur and Lister, of antisepsis and asepsis.

It is difficult for us to imagine the performance of an abdominal operation without anesthesia; and when thinking of the pre-anesthetic days, probably our first impulse is to thank heaven that we are not called upon to operate under such conditions. It is, therefore, a matter of great interest that we have preserved for us a record of the impressions of a man who operated both without and with anesthesia. Charles Clay began his work before the discovery of chloroform, and one would have imagined that he would have viewed the introduction of anesthesia with unmixed satisfaction; yet, in 1863, when he had performed one hundred and eight ovariotomies, with seventy-four recoveries, he appeared to be distinctly doubtful of the value of anesthesia; for in a paper entitled "Observations on Ovariotomy," we find this curious passage: "With regard to the use of chloroform, I am not certain if this agent has really added to the success of ovarian operations. The first fourteen of my cases were undertaken before it was discovered, and of these fourteen, nine recovered.

But, though I willingly admit the almost impossibility of obtaining the consent of females (at the present time) to submit to so formidable an operation without the aid of this valuable agent, and though I am equally convinced that chloroform is of itself one of the greatest boons to suffering humanity, yet, if it could be accomplished, I should infinitely prefer to operate without it, as the patient would bring to bear on her case a nerve and determination to meet so great a trial, which would assist beyond all value the after-treatment; it would also relieve the case from that most distressful retching and vomiting so common after all abdominal operations where it is used to the extent that is required in ovariotomy."

Anesthesia and improvements in technique conspicuously lowered the mortality of ovariotomy by lessening two of the great risks; namely, shock and hemorrhage; but even so, the mortality was still very high. In 1878, when Spencer Wells had completed nine hundred cases, there were seventeen deaths in his last one hundred. This was because the greatest danger, that of septicemia, had not been removed, and it was reserved for Lister to defeat this formidable enemy of the surgeon and of mankind. It is through his labors, and those of his disciples all over the civilized world, that we, at the present day, can undertake these serious operations with light hearts; and when I record before you my last ten years' results, with a mortality of a little over 2 per cent., I do so in no spirit of boastfulness or self-aggrandisement; but in doing so I place a wreath of veneration and gratitude on the shrine of the mighty dead.

The admission of ovariotomy to a recognized place in surgery was, of course, not a sudden event that could be assigned to a particular date, or even a particular year. The growth of its recognition was gradual, but we may say that twenty-five years ago this recognition was an accomplished fact. By this time, many surgeons, encouraged by the results of ovariotomy, were performing abdominal operations for other conditions. As far back as 1863, Charles Clay performed the first successful hysterectomy for fibroids by the intra-peritoneal method; and in the same year Koeberlé, of Strasbourg, carried out the first hysterectomy by means of the *serre-neud* and the extra-peritoneal treatment of the stump. In 1879 Lawson Tait performed the first

operation for the removal of inflamed tubes, and the same year witnessed the performance of Battey's first operation, in which healthy ovaries and tubes were removed for dysmenorrhea. In 1883 Lawson Tait established another record by operating successfully in a case of ruptured tubal pregnancy. But the conservative spirits in the medical profession twenty-five years ago opposed the performance of these operations, although they admitted the justifiability of ovariotomy; just as their predecessors of a generation previously had opposed the performance of ovariotomy, they said that fibroids and inflammatory conditions of the tubes did not endanger life, and that, consequently, it was not justifiable to operate for the relief of these conditions. Their opposition appeared, at the time, to be justified by the high rate of mortality, which then ranged from 20 to 30 per cent., whilst the mortality of ovariotomy had become reduced to from 10 to 15 per cent. But, happily for the race, there were surgeons who had the courage to persevere, believing that the mortality of these operations could be brought down, even as had happened with ovariotomy.

Thus the field of abdominal surgery became further extended; to enumerate only a few instances, we may mention the surgery of the appendix and gall-bladder, intestinal surgery, the operative treatment of gun-shot wounds of the abdomen, and operations for intestinal obstruction. Even the field of obstetrics was encroached upon; for while obstetricians were discussing the relative value of craniotomy and induction of labor in cases of contracted pelvis and other forms of obstructed labor, the advance of abdominal surgery made Cæsarean section a safe and satisfactory alternative procedure. At the present time the destruction of a living child, on the ground that there is an obstacle to its birth in nature's appointed way, is viewed with increasing repugnance; and we may look forward confidently to the time when the performance of craniotomy on a living child will be considered, save in very exceptional circumstances, as a relic of barbarism, stamping its perpetrator as an ignorant bungler.

There is no doubt that, while the mortality of abdominal operations remained high, the scope of abdominal surgery was limited in proportion. It is only desperate cases that admit of

desperate remedies, and as long as the risk of operation was greater than the risk of leaving matters alone, it was wise and practical advice to recommend patients to endure their sufferings with Christian resignation rather than face the risks of surgery; and patients would have been justified, when operation was advised, in replying in the words of King David, "Let me fall into the hands of God, rather than into the hands of men."

We now come to the consideration of what has happened in the last twenty-five years, and therewith to the more special subject of these remarks, which is the phenomenal extension of the scope of operations, not for the saving of life alone, but for the relief of suffering.

To illustrate how the field of operations has extended in inverse ratio to the rate of mortality, I cannot give you a more graphic picture than is presented in the records of the Chelsea Hospital for Women. I have investigated the records of all the abdominal operations performed at this hospital during the twenty-five years from 1886 to 1910; and grouping them in periods of five years each, we find the results as follows:

Years.	No. of Abdominal Operations.	No. of Deaths.	Percentage Mortality.
1886—1890	126	27	21.4
1891—1895	206	35	17.0
1896—1900	879	50	5.6
1901—1905	1,493	63	4.2
1906—1910	1,880	54	2.8

Thus, while fifteen times as many operations were performed in the last five years as compared with the first five years, the percentage mortality was eight times less.

By way of further illustrations, I will take two individual classes of operation, one for the removal of the tubes and ovaries for inflammatory disease, and the other, the removal of the uterus for fibroids. I have chosen these two, because, while these operations are performed in a certain proportion of cases for the direct saving of life, their purpose is even more the relief of suffering and of chronic invalidism. The records of the Chelsea Hospital for Women, taken in the same way as before, are as follows:

OPERATIONS FOR TUBAL DISEASE.

Years.	No. of Operations.	No. of Deaths.	Percentage Mortality.
1886—1890	12	4	33.3
1891—1895	22	3	13.6
1896—1900	198	7	3.5
1901—1905	302	10	3.3
1906—1910	363	5	1.3

HYSTERECTOMY FOR FIBROIDS OF THE UTERUS.

Years.	No. of Operations.	No. of Deaths.	Percentage Mortality.
1886—1890	14	5	35.7
1891—1895	12	5	41.6
1896—1900	150	16	10.6
1901—1905	345	18	5.2
1906—1910	487	9	1.8

These figures show that, for tubal disease, the number of operations was thirty times greater in the last five years, compared with the first five; and the percentage mortality was twenty-six times less. In the case of hysterectomy for fibroids, the number of operations was thirty-five times greater and the mortality twenty times less.

I doubt if the whole range of surgery could show any other two operations that presented such an extension of scope and such a rapidly diminishing mortality within a space of twenty-five years. Surgery has long held an honored place as the saviour of those doomed otherwise to die: the work of the last quarter of a century has given her an equally just and an even wider claim to be regarded as the restorer of those who are otherwise sentenced to what many feel to be worse than death, and that is, chronic invalidism and disablement.

A remarkable feature of this transition has been the corresponding change in the attitude of the general public towards surgical intervention. Formerly, an operation was regarded as a necessarily desperate remedy involving a perilous descent into the valley of the shadow of death; and it was only the power of a Christian faith or a stoical fatalism that enabled them, as Milton was taught by his Heavenly Muse

"to venture down
The deep descent, and up to re-ascend
Though hard and rare."

The operating theatre presented itself to the popular mind as a chamber of execution, over which hung the sign of the dripping blade, while about it lingered the echoes of the last sighs of departing souls. Now this same theatre has assumed, rather, the character of a temple of healing, with the whilom executioner transfigured into the High Priest. That which was a River of Styx, dark and cold, is now a Pool of Bethesda; and the ill-advised and taciturn Charon has been metamorphosed into the angel that troubles the pool as a signal of healing.

This change in the attitude of the public towards surgical operations is not limited to any one class; we find that the intelligent and highly-educated among our patients have a considerable knowledge of what is involved in various operative procedures, and of the attendant risks and after-results; and, because they are well-informed, they exhibit a well-reasoned confidence in submitting to operative treatment. On the other hand, the patients that form the greatest proportion of our hospital cases have but little knowledge of what is implied by operation, beyond the fact that they are sent to sleep and something is done; but their readiness to accept an operation as the proper treatment for them is equally great; all they ask is the assurance that it is for their good and that they will feel nothing; and we find that their confidence is born of their experience of what such treatment has done for their friends.

There is no doubt that implicit confidence on the part of our patients imposes upon us an added burden of responsibility in deciding what advice we are to give them, for, if their confidence is small, they will probably seek and obtain several opinions, and then make their own choice; but if their confidence is great, they will accept our opinion without question and act upon it without demur. But when the stage of advice is passed and that of action is entered upon, this confidence is of the greatest value to us, because the success of our operative work is immeasurably assisted by the trustful co-operation of our patients. This is true of those conditions involving questions of life and death, where it is our duty to say, "You must undergo an operation in order

that your life may be saved," and it is equally true of those conditions where an operation is a matter of choice rather than of necessity, and where our formula will rather be this, "You will be well-advised to undergo an operation in order that your health may be restored." In my own practice, the distinction that I adopt is that I *urge* an operation of necessity, and if the patient appears unwilling I use all my powers of persuasion; but I *advise* an operation of election, and after explaining the pros and cons I leave the choice to the patient.

I have dwelt at some length on this question of the attitude of our patients, because it is a most important factor in the consideration of operations for the restoring of health, as distinguished from operations for the saving of life.

Let me now say a few words about some of those conditions, in the department of gynecology, whose treatment by surgical means has been rendered possible by the fall in the death-rate of abdominal operations.

We may begin with uterine displacements. These are conditions that never prove fatal, and therefore we could not advise for their relief any operative treatment that was attended by an appreciable mortality. And so it was only when the mortality of abdominal operations generally was showing a marked decline that the surgical treatment of displacements came into vogue. It is interesting to note that the first abdominal operation for retroversion was an extra-peritoneal one, namely, the Alexander-Adams operation; at that time the peritoneal cavity was still a kind of "*noli me tangere,*" and every time it was opened there was a threat of septicemia. Modern asepsis has robbed celiotomy of its terrors; we have learnt the ways of the peritoneal cavity, and ceased to fear it. We now know that if we can leave the vulnerable diaphragmatic area alone, and avoid undue handling of the bowel, and refrain from introducing into the peritoneal cavity irritant chemical antiseptics, the peritoneum is a tolerant structure well capable of looking after its own interests.

It was not long, therefore, before intra-peritoneal operations were introduced for the treatment of displacements, most of them originating on this side of the Atlantic. We had ventro-fixation and ventro-suspension of the uterus, with their modifications, and the various procedures for the intra-peritoneal

shortening of the round ligaments. It is not necessary in this place to discuss the merits and demerits of these different operations; the one chiefly practised at the Chelsea Hospital for Women has been what we call hysteropexy, and in the twenty years, from 1891 to 1910, this operation was performed in five hundred and eighty-four cases.

The value of these operations is two-fold; in the first place, many patients are cured who cannot be relieved by other means, for example, cases of adherent retroversion and some cases of prolapse and procidentia. In the second place, patients can be saved from years of pessary treatment. I have before now defined pessaries as a necessary evil, that is, they are necessary sometimes, but evil always; and I have found no reason to alter this definition. It would be possible to draw up a serious indictment of pessaries: the unpleasantness of frequent examinations; the drawback of being chronically under the doctor's hands; the discomforts of irritating discharges and their attendant douchings; the risk of serious ulcerations into the bladder and rectum, of septic infection, and of the development of carcinoma as the result of retained pessaries, examples of which I have seen. If, by means of a safe operation, patients can be saved from all this, and if they desire such relief, surely they are entitled to have it. The radical cure of hernia is considered justifiable, to obviate the discomfort of constantly wearing a truss; why not then the radical cure of a uterine displacement, to obviate the necessity for the more obnoxious pessary. Well, the progress of abdominal surgery has opened up this field of relief to women and it has resulted in a wide relief of suffering and emancipation from disablement.

Passing on to the subject of inflammatory disease of the uterine appendages, we have to do with a somewhat graver condition, because, in a certain proportion of these cases, the patient is seriously ill, and we are called upon to operate in order to save life; and with the remainder, which forms the great majority, it is not a matter merely of obviating discomfort, but it is a question of saving women from prolonged illness, constant suffering, more or less complete invalidism and disablement. Some of these women, in the poorest classes, are the bread-winners, and for them disablement is a worse evil than death.

Now, as long as the operative mortality was high, these patients could not be advised to undergo surgical treatment; and up to twenty years ago the mortality ranged from 20 to 30 per cent. It is true that Lawson Tait, as far back as thirty years ago (or, to be precise, in 1883) was able to record sixty-two cases without a death; and his results justified him in taking up a position far in advance of the current medical opinion of his time, and in saying "we could not stop short of dealing with matters that affect life only. Hydro-saphinx was a frequent cause of the most intense suffering and therefore he would, and did, remove it by surgical operation without hesitation." By degrees, as the figures of the Chelsea Hospital for Women show, the mortality became lower and lower, the figures for five successive quinquennial periods being, 33.3, 13.6, 3.5, and 1.3. It was not, however, on the ground of mortality alone that these operations met with opposition in certain professional quarters; it was objected that after these operations, patients remained chronic invalids, that they were unsexed and rendered unfit for wifehood, that they became, at the best, hysterics; and at the worst, lunatics. These objections were chiefly theoretical; and two years ago I was able to show, from a detailed investigation of the after-results of these operations, based on two hundred cases in which both ovaries were removed, that 70 per cent. of the patients regained perfect health and vigor and retained their sex-instincts; that the legends of women developing bass voices and growing beards were pure romance; and that there was no more tendency to insanity after double ovariotomy than there was after any other abdominal operation.

Now, what happens to patients suffering from chronic pelvic inflammation who are not treated by surgical means. Here and there we may find a case where symptoms subside and health is more or less completely regained; but this is a rare event. Many of these patients swell the ranks of those who are unjustly described as hysterical and neurotic. How often it has happened to me to have a patient sent up with a letter saying that she exhibited marked neurotic tendencies; and on examination some chronic pelvic disease has been discovered. These cases have constituted in the past a great reproach to the medical profession; such patients often suffer intermittently; they are seldom

acutely ill, but they are never completely well; and because there is not much to show for their sufferings, and because, on occasion, they are able to make an effort to appear as other women, they have been treated as neurotics and almost as malingerers; they have been drenched with bromides and valerian; they have been sent from spa to spa and soaked in brine-baths and mud-baths; they have been driven to seek relief in alcohol, morphia, or cocaine; or they have found a doubtful haven among the faith-healers and the Christian Scientists. I contend that we have no right to label any woman as neurotic, unless we can be certain that she has no organic disease; and even then we shall be wiser if we suspend our judgment.

Think of the amount of suffering saved, the workers that have been restored to the position of earning their livelihood, the relief to the community in the conversion of dependent invalids into sound and useful members of the body corporate; think of all this amount of good done as represented by the eight hundred and forty-one women who have been cured of diseased appendages in the last fifteen years at the Chelsea Hospital for Women. Then add to these the thousands of women similarly cured in other institutions all over the civilized world, and you will gain some idea of the good that has resulted from the decreased mortality of abdominal operations.

We come, thirdly and lastly, to the subject of fibroid tumors of the uterus. Here we have a condition more inherently dangerous than the other two, leading more often to a directly fatal result; and, short of a fatal issue, causing prolonged suffering and disablement. Here, again, we have a condition in which the operative death-rate must exert a marked influence on the advice that we give to our patients. Twenty years ago this operative death-rate was from 20 to 40 per cent.; and it is evident that it was only in cases where a fatal result was threatened that so dangerous an operation could be recommended. In the much larger majority of cases, there was no question of life being at stake, the reason for operation would be only the relief of suffering, and it is seldom that patients yearn for death or are willing to incur a very great risk, merely to be relieved of suffering. It is better, after all, to live as an invalid than to die cured. Now, when a patient with fibroids has to be told that the resources of

medicine are exhausted and that the succor of surgery is more cruel than kind, it is a great comfort to be able to hold out some kind of hope, however unsubstantial; and so a fairy tale was built up and decorated to represent a scientific theory, to the effect that the menopause was the natural cure for fibroids. And patients were told, in all seriousness and good faith, "You must wait for the change of life, and then these tumors will shrink and disappear, and you will get well." And the patients went on patiently draining their life-blood away, carrying enormous tumors that prevented them from getting about, hoping against hope that the delayed menopause would arrive, like some millennium, to give them peace. Some of them survived the worst troubles and escaped with their lives, a few of them regaining a measure of health, and the remainder remaining more or less permanent invalids. Others found that the menopause, when it came, came not to bless but to curse, bringing in its train degenerative changes, infection, sepsis, and death. Now I do not know what is the state of current medical opinion in progressive Canada; but I can tell you that in some parts of the Old Country we find a tragic thing, and it is this: That while the operative conditions have revolutionized the death rate of hysterectomy, causing a drop from 30 to 2 per cent., the hoary myth of the menopause is found to survive, even in high places, and patients are still condemned to years of suffering who might be quickly and safely cured. Look once more at the record of hysterectomies for fibroids at the Chelsea Hospital for Women; observe that in the last five years under consideration four hundred and eighty-seven operations were performed, with a mortality in all cases—serious as well as simple—of 1.8 per cent.; and I think that you will agree that I am justified in the contention that all fibroids should be operated upon (unless some weighty reason to the contrary can be shown) in the early stages, as soon as symptoms arise, and without waiting for the development of grave complications; and that, whereas, in the early days hysterectomy had to be reserved for cases in which it was required for the saving of life, the progress of abdominal surgery has brought it within the scope of operations that are justifiably performed for the relief of suffering and for the restoration of health.

In bringing these somewhat fragmentary remarks to a close,

it may be well to guard against one possible misconception. Let me then state explicitly that the fact that an operation is safe is not, in my opinion, a sufficient reason for operating, if a cure can be obtained by other methods. I have no sympathy with the attitude of mind of Tennyson's imaginary surgical enthusiast, described in the lines—

"indeed, it was said of him
He was happier using the knife than trying to save the limb."

On the contrary, I am not ashamed to admit that I have a feeling of reverence for the human body; and that, in my opinion, the only sanction that can be accorded to surgical interference is that which is derived from the conviction that life, health, or comfort must otherwise be sacrificed. Having made this surgical profession of faith, I feel bound to state my belief that, on the other hand, we are not justified in refusing surgical relief when health and usefulness are at stake, any more than we should be entitled to withhold the aid of surgery when life is threatened—provided always that the ratio of the operative risk to the risk of non-interference be accorded its proper weight and consideration. In other words, while the grave issues of life and death justify great risks, the lesser issues of health and infirmity warrant only slight risks. It has been my object to show that the development of abdominal surgery and the extension of its scope have enabled us to realize the harmonious adjustment of this ratio, and to place the resources of our surgical art, with ever-lessening risk, at the disposal of an ever-widening circle of humanity.

THE PRESIDENT'S ADDRESS AT THE ANNUAL MEETING OF THE CANADIAN MEDICAL ASSOCIATION

H. G. MACKID, M.D., CALGARY, ALTA.

Mr. Chairman and Members of the Association:—

If, in rising to address this national association as its president for the year, I confess to some small feeling of pride, I have little doubt you will forgive me for it. It is a feeling born, and legitimately born, of a deep sense of the honor you have laid upon me; and I trust you will accept the assurance of my heartfelt thanks.

Yet, deeply as I have appreciated the honor, I have felt the responsibilities of the office in an equal, or even a greater, degree. At times during the past year, let it be confessed, the work and worries incident to preparing for this meeting have almost made me regret my election. We all owe a debt of gratitude to the medical men in Edmonton and the city authorities for the arduous work they have done and the excellent help they have rendered.

Gentlemen, I do not propose in this presidential address to take up any one aspect of medicine in particular, as is done in many addresses of this character; nor to give a general review of the progress of medicine during the past year, with which many of you are better acquainted than I am. What I have set before myself is rather to review briefly the work of the association in the past two or three years; to point out the lines along which progress has been made, and along which, as I take it, progress has still to be made; to estimate what part in it all the West has taken and may take, and, finally, to make an appeal for greater unity in thought and in aim among the profession in Canada for the advancement of this Association. If what I have to say shall render even the slightest service to the cause of the association, and through it to the cause of medicine in Canada, I shall feel myself amply repaid.

The selection of Edmonton for the place of meeting of the association this year is significant. It marks the awakening of the East to the fact that this Western part of the middle West

has come to man's estate, and is showing the lustiness of youth. We, of Alberta, who have grown up, so to speak, with the province, have been ourselves amazed at the strength and rapidity of her growth. But the East has not really recognized the fact. The Easterner knew much of Vancouver and Winnipeg but little of Calgary and Edmonton. Your selection of Edmonton, therefore, came as a welcome surprise. When it was first suggested, we immediately set our hearts on it. We desired greatly to give you a taste of Western hospitality, and we desired also that you should see us and observe how well we were getting on. Perhaps there is in us some such spirit as that of the boy who insists on his father measuring his height against the door every month.

However all this may be, you are eventually here, and in the name of Edmonton, and of Alberta, I bid you heartily welcome. This is only the second time that the association has held its annual meeting in Alberta. In 1889 it met at Banff, and there were only eighty-two present.

Only two meetings in the history of the association have been held in the West previous to the present one. Of these, one, as I have said, was held at Banff, twenty-three years ago, in the year 1889. The president was Dr. H. H. Wright, of Ottawa, and the general secretary was Dr. James Bell, of Montreal, both of whom have since died. The vice-president for the North-West Territory at that time was Dr. R. G. Brett, of Banff, who is so widely and favorably known throughout the West. The second of these meetings was held in Vancouver in August, 1904. The president was Dr. Tunstall, of Vancouver, and the secretary Dr. George Elliott, of Toronto. Dr. Elliott's annual report gave certain statistics of attendance which are interesting. He said that during the first decade after the organization of the association in 1867, there was an average attendance of seventy-one. In the second decade, from 1877 to 1887, there was an average attendance of 74.8; during the third decade, 107.5; while for the previous seven years, that is from 1897 to 1904, the average attendance was 139.1. In the light of these figures it is interesting to note that the average attendance for the past seven years has been 320, while if we count only the last three meetings since the inauguration of the *Journal* it is 400.

In reading over the minutes of the Vancouver meeting, I came across two resolutions of interest to us. One concerned the question of a Public Health Department for the whole country, the other that of Dominion Registration.

At the Vancouver meeting, in 1904, a strong resolution was passed, urging the Dominion Government to establish a department of public health under a minister of the crown; a matter which the association had been urging for three years. Unfortunately, this resolution, as well as others of a like purport, remained without effect. But I am happy to be able to say that matters in this direction now look more favorable. At the first meeting of the Canadian Public Health Association, held last December in Montreal, under the presidency of Professor Starkey, Premier Borden promised that his government would institute a general reform in public health matters, and put that department on a sound and modern footing. In this he was supported by the Hon. Martin Burrell, Minister of Agriculture. We can thus hope that, before long, this very important question will be settled in the manner that this association has been urging for so long.

At the same meeting there was passed a resolution concerning Dominion Registration, to which Dr. Roddick, of Montreal, had given so much of his time. This, too, has now come to pass, but only this year. During the present spring the so-called "Enabling Clause" was finally passed by Ontario, the last of the provinces which had previously been afraid that their provincial autonomy would be endangered; and I am glad to be able to say that we are finally in a position to begin the detail work of arranging for a Dominion Council.

The Roddick Bill aims at the establishing of one set of examinations and one standard of qualifications for the practice of medicine in Canada, in place of the different examinations and varying standards of the individual provinces. It was introduced in the House of Commons in 1902 by Dr. Roddick, then representing St. Antoine Division, Montreal. The bill was passed, but owing to objections raised to certain features by provinces, jealous as to their existing rights, it was found impossible to give effect to the act.

About two years ago a meeting of the representatives of the

Provincial Medical Councils was held in Montreal, when Dr. Roddick succeeded in securing the consent of all to certain amendments which he proposed to the original act. These amendments, removing earlier objections, were embodied in a bill which was passed at the 1911 session of the Parliament in Ottawa. It is part of the act as it now stands that the provinces give their assent to the principle of the act through a bill passed in their own legislatures, and it is this step which has now been taken by all the provinces.

When the Dominion Medical Council is finally formed it will be possible for a physician, having passed the examinations prescribed by it, to practise in any province of Canada, instead of, as at present, only in the province or provinces where he has satisfied the requirements of the respective provincial medical councils. The Dominion Medical Council will have full authority over the purely professional subjects, while the provinces will probably exercise authority over the non-professional subjects of the examinations.

I have no doubt that I voice the sentiments of all of you here present, and indeed of the whole profession in Canada, when I say that we all owe a profound debt of gratitude to Dr. Roddick, who has been the direct means, and in a sense the only means, by which this beneficent law has been placed on the statute-books. We realize what a vast amount of time and energy he has expended on this work; how, indeed, he has given many of the best years of his life to it. And in thanking him we desire to record, not alone our appreciation of the work he has done, but also of the sacrifice it has cost him. If it is, in his eyes, any reward that the profession throughout the country feels grateful to him for his work; if it is to him any gratification that the whole of Canada has learned to call this bill the "Roddick Bill"; if it is any pleasure to him to realize that every member of the profession, thinking of this task which he has accomplished, looks up to him with respect largely mixed with affection, let him be assured that all this is true. It is an achievement which perhaps no other medical man in Canada could have brought to pass. The task of reconciling so many diverse and even warring interests in the various provinces of the Dominion; of overcoming prejudice, and of bringing to-

gether those of dissimilar views, was only to be accomplished by a man whose professional reputation was high from East to West, and whose tact had become almost proverbial from East to West. People not only gave him affection; they gave him respect. It was the combination of qualities of head and heart in him which finally brought this great matter to a successful conclusion. One of the chief privileges of my office this year lies in the opportunity which it affords me of thus giving public expression, on behalf of the association, to the gratitude which we all feel towards Dr. Roddick.

I have thought that this meeting would be interested in a short review of the recent work of the association. The association, it is true, has been in the last ten years steadily increasing in numbers, but the increase up to a certain period has been slow. The establishment of the *Journal* two years ago gave an enormous impetus to its growth. With the inception of the *Journal*, the conditions of membership were radically changed. In former years a member paid $2.00 annual subscription, and paid it only when he attended the annual meetings. It is perfectly clear that with an annual attendance varying from one to three hundred, the amount of money in the treasury was rarely sufficient to do more than pay the ordinary expenses of the secretary's office, together with the expenses incident to the annual meeting. The activities of the association along general lines were extremely hampered. Without an official organ and without money, there was very little that could be efficiently done. Now we have changed all that. Thanks to the labors of the Finance Committee of the past two years, we have established an efficient journal of the association, which, under the able editorship of Dr. Andrew Macphail, has already won a place for itself in the periodical literature of the medical world. We have hopes that within a short time we shall be able to make it a weekly instead of a monthly. That will, however, depend upon the support given the association by the profession at large throughout the country. In the second place, the establishment of the *Journal* enabled the association to raise the membership fee to a reasonable amount, and to make membership in the association and the payment of the annual dues a permanent matter. I am instructed by the secretary and

by the treasurer to say that this does not mean that the association has grown suddenly rich. In spite of the increased income, the necessary expenses connected with the publication of the *Journal* have eaten up nearly all the revenue. But the profession now has an organ to represent it in Canada; and while it is yet too soon to expect that it can give adequate representation to all the branches of the profession, and though it must naturally fall short as yet of the standard which many of you hope for it, it has nevertheless done extraordinarily good work, and is a journal of which we all feel proud.

During the last two years a second big piece of work has been carried on by your officers. I refer to the affiliation of the various Provincial Associations with the Canadian Medical Association. At present all of the provinces save one have declared themselves in favor of affiliation, and have become affiliated. I am convinced that this work will be of the greatest benefit to the profession in Canada.

I pass now to a brief consideration of the needs of the future. Along what lines are advances to be made? To begin with, there is one matter, gentlemen, which I think is of paramount importance to this association, and it is this: the consolidation of the profession in Canada into one strong and united body. That task can be accomplished by no other means than by this national association. We have already done something towards this end. No longer than three years ago we were a very haphazard body. The membership was constituted, for all practical purposes, only by those who came to the annual meeting—from three hundred to four hundred men. And these, of course, varied enormously from year to year, according to the part of the country in which the meeting happened to be held. With this state of affairs, there was no possibility of concerted action. A great step forward was made in the establishment of the *Journal* of the Association, and in making membership continuous, and the payment of the fee an annual necessity for continued membership. The establishment of the *Journal* involved, as I happen to know, a very great amount of labor on the part of the Finance Committee, and the thanks of the association are due to the members of the Finance Committee for the last three years, as well as to its able and self-sacrificing

editor, Dr. Andrew Macphail. The *Journal* has had a very excellent start. It had to be begun as a monthly, but we look forward to its becoming, before long, a weekly. Canada can afford plenty of good material for a weekly, if material were all that was needed. But, unfortunately, journals cannot live on material alone. The financial burden of the undertaking is very great: and the Finance Committee assures me that unless the membership roll of the association increases very considerably, it will be impossible to stand the expenses of a weekly. When we consider that the *Journal*, as the organ of the Canadian Medical Association, is the one great bond which alone can unite the profession from East to West, we cannot fail to realize the great importance of loyal adherence to the association. It means so much to the profession in Canada as a whole, and to each individual man, that there should exist a strong central body, like the Canadian Medical Association, to look after their interests, that I cannot conceive how any medical man should remain out of it.

This, then, is the great problem: to get the Canadian Medical Association solidly cemented together. How is it to be done? To my mind, it is to be done by an extension of the principle of affiliation. Two years ago the only province that had declared itself in favor of affiliation with the Canadian Medical Association, and that became affiliated, was Ontario. In the last two years all but one of the provinces have followed Ontario's lead, and the one exception has declared itself unofficially in favor of affiliation at an early date. This is the necessary beginning. But what we have yet to do towards organization is to create a properly constituted body, a sort of parliament, with proportionate representation from each province. Hitherto we have had the Executive Council, but this body has been chosen in an absolutely casual way at the times of the general meetings by members who happened to be present at the first meeting of the session. The members of the Executive Council should be properly elected by the respective provincial associations, and the Council should have more work given to it and greater responsibility placed upon it than in the past.

But this affiliation of the provincial associations with the Dominion Association is only half of what should be done. The principle of affiliation should be extended to embrace the rela-

tions of the provincial with the county and city societies. At present, this is practically barren ground. The county societies have no relations with the provincial associations. They are casual and independent. Yet there can be no doubt that, to cement the profession together, the bond between the county and provincial societies ought to be quite as close as that between the provincial and national associations.

This then, gentlemen, is what I feel sure we must strive for, and what I ask your co-operation in. Let us begin with the county societies as the centre of things. Let us group, if necessary, several counties into one good district society. Let these elect members as delegates or officers to the respective provincial associations. Where no county societies exist, let the men of that particular region organize one. This has already been proposed for Ontario by Dr. Herbert Bruce, in his recent address as President of the Ontario Medical Association for this year. He said: "I think it very desirable that there should be an increase in the number of small county medical societies, and I should like to suggest that, for this purpose, the province be divided into ten districts corresponding to the ten health districts recently established by the provisions of the new health bill. As there are forty-seven counties in the province, this would mean that each society would include four or five counties, which appears to me to be a practical arrangement. Then the method of securing membership in the Ontario Medical Association would be simplified by accepting the members of these smaller societies, which would obviously be in a better position to determine their qualifications." It seems to me that Dr. Bruce's proposal is of the greatest importance, and I would urge that a similar plan be adopted by the other provinces. Indeed, I think, gentlemen, that if this address has any value at all, that value lies in the advocacy of the idea just described. This is not the place to go into details of organization, which may well be left to the Executive Council and the general secretary; but I am convinced that a close union of all the county societies with their provincial association is the great need of the immediate future for this Association.

But it may be asked by some of you, what, after all, are the advantages to be gained by this scheme of consolidation or affiliation? Are we going to be any better off for it? Perhaps

the best reply I can make to such a hypothetical question is to point to the extraordinary success of the American Medical Association. I presume it can safely be said that no national association in the world has accomplished so much in so short a space of time for the general good of the profession as has the American Association. Anyone who has followed its work at all closely, cannot but admire the extraordinary amount of good, both for the profession and for the public, which it has accomplished in the last ten to twenty years. The scope of its activities has widened enormously. It would be impossible in an address of this nature to refer in detail to all these activities, but I cannot avoid calling your attention to a few of them. It is well known to you that in the matter of medical education, not many years ago, the States, with the exception of a few prominent universities, were in a deplorable condition as regards their medical schools. The proprietary school, and as a more or less natural result, the diploma mill, flourished. The American Medical Association set itself to clean their Augean stables. Their stables were encumbered with such stuff as the diploma mill, a low standard of professional conduct, commercialism, quack medicines, dishonest proprietary remedies, all sorts of fake cures, and all sorts of patent medicines. They have not rid themselves, by a long way, of these matters of reproach, nor indeed has any country anywhere, but they have waged a very good war against them, and in that they serve us as a very good example. What have they done? They have established permanent, and active, and hard-working committees on medical education, which have reduced the number of the low-class medical schools to nearly half what they were before. They have established a committee on legislation which, in a great many ways, has been of the greatest assistance in fighting the passage of bills in favor of unqualified sects in medicine, and in favor of the proprietary interests; they have established committees on such subjects of general interest as anesthesia and the newer remedies, which have given to the profession at large reliable information upon these things. They have organized a very large proportion of the profession in America into a united body; they have published the fullest and most accurate directory of the medical men in the United States and Canada that exists, from which, by the way, our own associa-

tion has derived much benefit. They have gradually made of the *Journal* of the Association the best all-round weekly in the world, certainly the best for the general practitioner. Now the secret of the whole thing, the key-note of its success, has lain in its power to secure the loyal support of the profession throughout the country, and this they have done by the plan of organization that I have outlined above—county societies uniting to form state associations, and state associations uniting to form the national association. It means something to a man to be a member of a county society, for that is the only gateway to membership in the state and national associations. There is no reason why we in Canada should not make a like success with our own association and our own *Journal.* All we need is a good start, and if we can arouse the enthusiasm and obtain the loyal support of the majority of the profession in Canada, we shall be able to follow out a like successful career. If we can only secure a large enough membership to justify the expenses of making our monthly into a weekly, we can then go ahead at a great pace. The *Journal* will attract new members; it will pay, and more than pay, its own running expenses; it can serve as a medium of publication for the whole profession; it can influence the legislatures to enact good medical laws; it can wage effectual war on the nostrum vendors and the quacks of all descriptions; it can furnish up-to-date information on all subjects of interest to the general practitioner; and it can do a thousand other things which I have not space to mention here. Any tendency to the narrow view, to an exclusive attention to home affairs, to provincial chauvinism, to country or city narrowness, to personal absorption in one's own practice to the exclusion of a larger view of national medical affairs, must be combated; and I think that I strike no false note in appealing to you all who are here present to act in your own district as missionaries in this problem, to arouse a pride in our association and a willingness to work for it. I think that I can guarantee that so far as the West is concerned that spirit is already strong in us.

Gentlemen, I know you will forgive me, knowing me as you do of old for an enthusiastic Westerner, if I now allow myself in closing, a few words upon what seems to me to be the value of the West to the profession of medicine in Canada and to this

Association, and a few words also upon the future of medicine in the West.

What is the value of the West to medicine? Does not the answer lie in the words, energy and newness and oportunity? The West is young and lusty, and full of life. It has a love of action, and it has a love of newness. It is unhampered by traditions, whether of conduct or of science. It will do the things that it thinks right, whether in conduct or in science. I really do believe that, in medicine, as in the rest of human endeavor, the West is going to supply that leaven of originality which, after all, is "the one thing needful." The West thinks boldly and acts boldly, by necessity first, then by conviction, and ultimately by habit. Give the West a little more time to establish herself soundly in the higher education, by means of provincial universities, and she will yield a rich harvest of energetic and trained men who will have in them that invaluable dash of western originality which makes for really big work.

And now, what is to be the future of medicine in Alberta and the West I think it will be admitted by everybody that the goal towards which we must strive in the matter of medical education in Canada, is the establishment of a first-class medical school in each province of the Dominion, as part of a provincial university. This does not mean that each province must have a medical school as a necessity of itself; it means rather that, with the enormous growth in population in Canada, it will become inevitable that each province shall have a medical school, and that we must see to it that that medical school is a first-class one. In Alberta, we already have, and have had for the past four years, a provincial university which is doing excellent work under the able presidency of Professor Tory. We have no doubt that before very long we shall be able to establish a good medical faculty. And I would point out that we have already in Alberta first-class facilities for the education of the medical man. Our hospitals are excellent institutions, and will soon be quite large enough to serve efficiently for the teaching of medicine. What we must aim at is to establish close relations between the university and any proposed beginnings of medical teaching. There is plenty of money in the country with which to endow education. It must be our business to show to our wealthy business men the advantages which must accrue to the

province at large from any financial help given to the cause of general education. I place my faith in the growing wealth of this new country, and not less in the inherent generosity of the Westerner. It seems to me inevitable that our country will, before long, not only have a university and a medical school that one may be proud of, but that these will be amply endowed with money made in the West, and given by the generous men of the West. All this may probably happen in Vancouver before it happens in Alberta, but we shall certainly not be far behind.

Looking forward, as I do, in this hopeful way to the future of medicine in the West, and anticipating as I do the training of medical men in the West, I feel sure that when we do graduate men in medicine out here, these men will do us credit. Like all Westerners, our graduates will have the love of travel, perhaps more so than have they of the East, and perhaps on the average they will have more money to do their travelling with. Already our medical men are well known in the big clinics in this country and abroad, from the mere fact that they visit them so often. This will make for broadness of view. If you get in any man broadness of view combined with energy and the progressive spirit, you get exactly those qualities which make for the advancement of medicine as a whole and the welfare of the patient in particular.

We have, out here, the advantages of a clean slate. We can begin right. We can begin where others leave off, unhampered by conditions that have got set and that are difficult to change. I hail the meeting of this national association in Alberta as a great stimulus. Our own men will be more encouraged to do better work, and our laymen will have an opportunity of seeing what the profession is doing for Canada.

And now, fellow-members of the Canadian Medical Association, I desire in closing to thank you for your patience. Yet I would not quite finish with nothing but the customary "thanks" in my mouth. Rather would I end with a renewed appeal to all the members here present, and to the whole profession in Canada, to unite themselves heartily together in this national association, for the benefit of the individual and the benefit of the whole.

Society Proceedings

EDMONTON MEETING OF THE CANADIAN MEDICAL ASSOCIATION

THE forty-fifth annual meeting of the Canadian Medical Association at Edmonton, August 10-14, was probably the most successful of any in the history of the Association. When Edmonton was selected as the place of meeting there were many doubts expressed regarding the possibility of securing anything like a good attendance. It was not considered probable that the gathering would be representative of the whole Dominion. All these misgivings were set at rest, for the registration of medical men in attendance was the largest the Secretary has ever had to record. The medical men west of the Great Lakes are certainly an enthusiastic crowd and thoroughly alive in regard to matters pertaining to medical progress. There has never before been such a large convention of members of the medical profession residing in the great Middle West. Every Province, from the Atlantic to the Pacific, was represented, but of course the Western Provinces sent the largest quota. From Ontario there were thirty-five, and, strange to say, from Toronto there were only three representatives.

The meeting opened on Saturday, and on Sunday the pulpits of most of the Edmonton churches were filled by medical men, who spoke to large congregations on subjects which were quite appropriate for the occasion. Such themes as "Religion and Health," "Mental Healing, False and True," "The Relation of Medicine and Religion," "The Hospital as One of the Church's Activities," were taken up and discussed before large congregations with such interest that the innovation of having an Association Sunday proved most successful. It is a Western idea that may well be followed out at future meetings in the East.

The programme arranged was one which covered fairly well the whole field of medicine and surgery. The President's ad-

dress was a most creditable one, and voiced, what is evidently the prevailing sentiment in the West, loyalty, favoring not only making the Association representative of the whole Dominion, but having the scheme of medical registration bring about a confederation of the whole profession in Canada. There was evidently no mistaking the feeling of the medical men in the West in regard to the subject of Dominion Medical Registration. The high and most unusual compliment of electing Dr. T. G. Roddick, of Montreal, Honorary President for life, in recognition of his splendid efforts to secure the legislation needed to bring about his great reform, was passed with an enthusiasm probably never before equalled in an assembly of Canadian medical men. Dr. Roddick certainly well deserved the honor paid him.

One of the prominent features of the meeting this year was the success with which the different sections were attended, and the interest taken in the discussions. The true Western spirit of inquiry was in evidence, and on that account nearly every paper brought out some practical lessons from the school of experience.

Every one who went from Ontario has returned with pleasing tales of the cordial welcome they received. Western hospitality knows no bounds, and the many social entertainments arranged for the visitors will long be pleasantly remembered.

The medical men of Edmonton were evidently well organized for the occasion, and the manner in which they united in their efforts to make the meeting a success might with the greatest possible advantage be copied in some of the older cities of Canada.

As the result of the meeting at Edmonton the Canadian Medical Association is more firmly established than ever before in its history. The meeting next year is to be held at London, and Dr. H. A. McCallum of that city is the new President. London will have to go some if the recent meeting at Edmonton is to be surpassed, either in interest or attendance.

The names of the members elected to the Executive Council for the ensuing year are as follows:

Dr. F. G. Finley, Montreal; Dr. J. G. Adami, Montreal; Dr. T. B. Whitelaw, Edmonton; Dr. J. Halpenny, Winnipeg; Dr.

R. A. Reeve, Toronto; Dr. R. E. McKechnie, Vancouver; Dr. Octavius Weld, Vancouver; Dr. Kennedy, McLeod, Alta.; Dr. Daniels, St. John, N.B.; Dr. A. I. Mader, Halifax; Dr. Alex. Primrose, Toronto; Dr. P Conroy, Charlottetown; Dr. Young, Saskatoon; Dr. E. Archibald, Montreal; Dr. H. B. Small, Ottawa.

The Finance Committee was elected at the last meeting of the Executive Council, and the names of the members are as follows:

Dr. F. G. Finley, Montreal; Dr. J. G. Adami, Montreal; Dr. Edward Archibald, Montreal; Dr. H. B. Small, Ottawa; Dr. Young, Saskatoon; Dr. A. Primrose, Toronto; Dr. R. E. McKechnie, Vancouver; Dr. A. I. Mader, Halifax.

It was resolved that the Montreal members should form a sub-committee for the transaction of routine business.

The applications of the Medical Societies of Nova Scotia, New Brunswick, Saskatchewan, and British Columbia, for affiliation with the Canadian Medical Association, were granted by the Executive Council. There remains only the Province of Prince Edward Island which is still unaffiliated.

The place of meeting for 1913 is London, Ontario; President-elect, Dr. A. McCallum, Professor of Medicine in London University.

The resignations of Dr. Edward Archibald as general secretary, and Dr. H. B. Small as treasurer, were accepted by the Executive Council with regret. Both of these officers explained that the large increase in the amount of work arising out of the establishment of the *Journal* and the increase in membership had been the only cause of their feeling obliged to tender their resignations.

In his annual report the general secretary suggested that, as the work had grown so largely in the past two or three years, it would be advisable to appoint a salaried official to act as secretary and treasurer, and also as assistant to the editor, Dr. Macphail, one who would be able to devote a considerable portion of his time to the association work. This recommendation was cordially approved by the Executive Council, and Dr. W. W. Francis, of Montreal, was appointed. It was left to the Finance Committee to settle the details of his work and the remuneration that should be attached to this threefold position.

CANADIAN PUBLIC HEALTH ASSOCIATION

THE second annual congress of the Canadian Public Health Association took place at the University of Toronto on September 16th, 17th and 18th. The meeting was a gratifying success, and we congratulate the committees on the result of their labors. The subjects discussed included impure water, impure milk, filtration plants, social misery, military hygiene, the relations of hospitals to the public, the open window, the effect of immigration on public health, food inspection, and medical inspection of public schools, and each and all of the papers read were thoroughly interesting and practical. The public address by Dr. W. A. Evans of Chicago was a masterly effort. We cannot overlook mentioning the Symposium on Tuberculosis, conducted by Dr. J. H. Elliott, of Toronto, Dr. H. G. Roberts, of Guelph, and others. The paper by Medical Health Officer Dr. Hastings was capital, as also that of Dr. P. H. Bryce, Superintendent of Immigration at Ottawa. The discussion on a pure water supply, as induced by the address on "Toronto's Filtration Plant," by Mr. Joseph Race, of Ottawa, was of peculiar interest to Torontonians. To this subject we allude editorially in this issue. The Ontario Public Health Act was dissected for the Association by Chief Health Officer Dr. J. W. S. McCullough. A smoker was held on Monday evening, a garden party was given by Sir Edmund Osler at Craigleigh on Tuesday afternoon, the annual dinner was held on Tuesday evening, and Colonel and Mrs. A. E. Gooderham entertained the delegates at the King Edward Hotel on Wednesday, so that it will be seen that the social side of the meeting was by no means overlooked.

The President's address was well worth listening to. Dr. Hodgetts is to be congratulated on his effort. He made a capital chairman.

His Royal Highness the Duke of Connaught is chief patron of the Association. Lord Strathcona and Premier Border are vice-patrons; Sir Edmund Osler is Honorary President; amongst the Honorary Vice-Presidents are: Sir Wilfrid Laurier, Sir James Grant, Hon. A. L. Sifton, Mr. J. C. Eaton and Sir James Whitney; the President is Dr. Charles A. Hodgetts, and the Vice-Presidents are Drs. J. W. S. McCullough, M. M. Seymour, Regina, and E. B. Fisher, Fredericton.

INTERNATIONAL CONGRESS OF MEDICINE (LONDON, ENG.)

PREPARATIONS for the 17th International Congress of Medicine, which is to be held next year in London, England, are going forward rapidly. A circular has recently been issued by the Honorary Secretary, that all those intending to present papers at the Congress should notify him by February 28th, 1913, giving at the same time a short abstract of their paper. In this way a synopsis of the papers to be read will be prepared by official "reporters," and these will be translated into the various languages and published in the Medical Journals before the Congress meets. Those taking part in the Congress will thus come well prepared to participate in the discussions. We would urge upon Canadians the necessity of doing their fair share to make the Congress a success.

It is with pleasure we announce that Dr. T. G. Roddick, of Montreal, Emeritus Professor of Surgery, McGill University, has been appointed a Vice-President of the Congress.

The Canadian National Committee, as at present constituted, is as follows: W. H. B. Aikins, Toronto; A. McPhedran, Toronto; G. E. Armstrong, Montreal; T. G. Roddick, Montreal; H. A. McCallum, London; H. G. McKid, Calgary; Jasper Halpenny, Winnipeg; C. K. Clarke, Dean of the Medical Faculty, University of Toronto; J. C. Connell, Dean of the Medical Faculty, Queen's University; H. H. Chown, Dean of the Medical Faculty, Manitoba University; E. P. Lachapelle, Dean of the Medical Faculty, Laval University; F. J. Shepherd, Dean of the Medical Faculty, McGill University, and representatives of the Canadian medical press: Geo. Elliott, *"Dominion Medical Monthly"*; John Ferguson, *"Canada Lancet"*; George O. Hughes, *"Western Canada Medical Journal"*; A. Macphail, *"Canadian Medical Association Journal"*; Harry Morell, *"Western Medical News"*; Adam H. Wright, *"Canadian Practitioner and Review"*; W. A. Young, "CANADIAN JOURNAL OF MEDICINE AND SURGERY."

The Honorary General Secretary is Dr. W. P. Herringham, and any communications in regard to the reading of papers should be addressed to him at the Central Office of the Congress, 13 Hinde St., London W., England.

Selected Articles

A LITTLE FLIER IN APPENDICITIS—THE CONFESSION OF A REFORMED SCOFFER

BY AN INITIATE.

Some persons are born to appendicitis—as well as to measles, whooping cough, chickenpox, scarlet fever, sprained ankle, broken arm, diphtheria, typhoid, pneumonia, and so on through all the list. You know such individuals and so do I. And some persons have appendicitis thrust upon them. I am they. But to assert that anybody should deliberately *acquire* appendicitis is a libel upon human intelligence. All these gibes about appendicitis being a fashionable cult are rot. All these jokes about having your appendix removed "while you wait" are rot. I used to be that kind of a scoffer myself.

No person who has a grain of sense will yearn to have an unoffending appendix removed, just for the experience; and no sane person who has had the appendix removed will bid for the operation to be repeated. Fortunately it can't be. A beneficent Creator has given man only one appendix. Man doesn't need even that; but there are many surgeons, so let him be generous.

Appendicitis formerly masqueraded as colic, stomach complaint, intestinal fever, and other ground-floor obscurities. Through generation after generation the appendix remained a sort of poor relation in the human system, as unacknowledged as though undiscovered. Now it is being discovered, and acknowledged, every hour, and oftener. I discovered mine suddenly at eleven o'clock in the morning. As a result repudiated, it is to-day in retreat in a bottle, and there it shall stay. No sympathy need be wasted on an appendix.

Chagrined at thus having fallen under suspicion myself, and still somewhat skeptical, I felt I must admit the Lady-Who-Married-Me into my discovery—albeit I was resolved not to

confess my shame outside the immediate family circle. We canvassed the situation, took careful observations, verified the latitude and longitude, and finally, with bated breath acknowledged the hateful fact.

When the doctor arrived I obligingly volunteered him a plain case of colic caused by toast and scrambled eggs, or of neuralgia of the stomach. It might easily have been either: the main turmoil being centre of stage, so to speak; and either would much simplify the situation, when one is busy—as one always is if threatened by an illness. I never knew an illness to come that didn't encroach upon a rush order, or else upon a vacation.

However, to return to our appendix (I use this plural possessive in a collective sense, hoping, now that the reader is interested, he has, or has had, an appendix of his own). The doctor smiled gently, even wearily (the Lady-Who-Married-Me was horribly solemn), and remarking that it undoubtedly was a colic of a *certain description*, he proceeded to prod meditatively with his fingers that same old spot located slightly in the northwest corner of the southeast section of township 7-12-6:30, range 45 degrees west of the abdominal meridian.

"Um-m-m. A little colic, evidently," he murmured.

A *little* COLIC! But I let this pass. Through several years I have noted that doctors, when summoned for headache, or backache, or toeache, or—er neuralgia of the stomach, invariably begin with that spot just inward from and above the right hip. Their fingers may stray to other parts of the anatomy, but they always return again. It seems to be an infernal habit. Occasionally my doctor sighed, audibly, as if fascinated by the little tune that he was picking out here and there (mostly here) upon my lower front dedicated to aldermanic promise; and whenever he made me say "Ouch!" he appeared particularly gratified.

So, finally, as the moments fled, and as the enjoyment was all one-sided (a fact which he seemed bent upon proving), I ventured to expostulate, mildly but firmly, "Cut it out, doctor" —just to intimate that I had been explored that way before, that it was an old dodge and there was nothing doing, that I had an engagement downtown in fifteen minutes, and that he had better give me a dose of peppermint or paregoric and let me go.

But he misunderstood me; and leaning back, with finger-

tips together and a satisfied air, he declared, blandly: "I believe I will!"

Some persons are enabled to wait, and to have the appendix deleted when it's asleep. That is all right, if you *can* wait or if you haven't the money. If you can't wait, and haven't the money, then the surgeon can do the waiting. For this is one of the most aggravating features of appendicitis: to have to pay for something you never have used and don't want and don't need. A $500 appendix, only two or three inches long and entirely obsolete and worthless, is a frightful extravagance.

I couldn't wait; and while the Lady-Who-Married-Me fluttered disconsolately upon the front steps, and neighbors flattened their noses against front windows, I was whirled away, swathed in ambulance blankets, lying ignominiously on my back, bound for the unknown.

But after all, what is a simple operation for appendicitis, huh? Bah! Pooh! A topic for jokes in the comic columns. Something as common as measles. An inconvenience, of perhaps six days—my doctor had been up and around in six days; perhaps of ten days—for Mrs. Jones, wife of Jones, the haberdasher, had been up and out in ten days; perhaps of two weeks at the furthest—for Jones, who had caught it from his wife, was a two weeks' man.

It comprehends merely making a quick incision with a very sharp instrument, snipping off a dangling thing about as large as a fishworm, and closing the wound again, whereat it heals immediately by first intention; modern surgery, you know.

When the doctor politely asked us which hospital we preferred, the Lady-Who-Married-Me and I were abashed. We didn't prefer; and our experience as onlookers was that no matter at what hospital anybody had been he (or she) always wished that he (or she) had tried another; it's just the same as summer resorts. We fain must tell the doctor, offhand, to take any, and have the little job over with, so that I would get back to work within the week.

The hospital loomed large and austere, especially to a man on his back making exit feet first from the ambulance. He has scarcely time wishfully to choose the prettiest one of the nurses who look curiously down from the windows above, when he

glides, still wormish, underneath a portcullis, which clangs behind him like the clang of doom, and the elevator slowly ascends. A hospital elevator does not hurry, but it is as purposeful as a fat man boarding a car.

At this stage my neuralgia of the stomach was much better; indeed, it had quite vanished, and I felt very well and strong again. An operation seemed superfluous this time; but the elevator man was callous, and claimed that he lacked authority in such a matter. Landed, we (I am employing here the editorial pronoun) went rolling, toes and face beseechingly up, down a long corridor, hastening toward the inevitable. Important as that stomach was to us, the nurses encountered all looked bored, and a supercilious whisper pervaded the corridor atmosphere: "Who's that?" "Oh, just another appendicitis case." "Heighhum." Whereupon the stomach tuned up again, as any self-respecting stomach should. We felt just as serious as possible, and invoked a deathlike pallor.

The succeeding preparations were both ominous and interesting. The feat, alone, of disrobing, acrobatically, without leaving one's back, and the donning (assisted by the remarkably calm and mandatory nurse) of the hosiptal gown, or shirt, or shirtee, is an act appalling.

When the doctor strolled in I explained to him the exact circumstances which had developed: that the neuralgia of the stomach had ceased, that the—er, slight tenderness in section, township and range heretofore described had (Ouch!) disappeared, that I had had a nice ride down, that folks were very kind to me, and that I was ready to go home.

He smiled indulgently, and made me say "Ouch!" again; and, having toyed with my wrist and glanced at my tongue, strolled out. I stood about as much show as a man in the dentist's chair, with his lower jaw weighted open, and a gag between his teeth, and a rubber dam and a suction pump in. They had shirteed me with the intention of cutting something out; otherwise I had gained admittance under false pretences.

When not frightened half to death my branch of the Smith family is game; and unresisting, like a lamb being conducted slaughterward, I permitted two large porters to wrap me once

more in blankets. This was welcome as at least covering the shirtee.

Arrived thus, *in suspenso,* while one is en route through a monitory atmosphere of bustle and ether the vista of white ceiling and white walls is agreeably interrupted by perhaps a passing view into a side room where a line of hairy-armed humans—or inhumans—in extreme negligée are scrubbing themselves over a row of stationary laundry tubs. These are surgeons, before and after. Scoffers at appendicitis usually are treated to this spectacle; I was.

The vision vanishes, for now we (editorial we again) are halted, half turned, and skillfully wheeled backward, crablike, into a small white compartment, where hover white forms, male and female, cowled as monks and nuns, mingling the angelic with the demoniacal.

They are going to chloroform us! The crucial moment is in perigee. At this juncture it is quite proper that we outwardly remain bold and stoical, but that tumultuous thoughts surge through our brain. There are many dogs and cats, in trunks and washboilers, to recall distinctly. Arise their doleful yelps and yowls. Never again will we chloroform a supplicating, defenceless animal.

The nurses are binding closer the blankets, and are pinning the folds across arms and legs.

"So you won't strike or kick," they explain pleasantly.

Extraordinarily jocular and light-hearted are these nurses, for attendants in a place of torment. Possibly they do not realize that we are of much concern in this mundane sphere: that when we are cut into, the Lady-Who-Married-Us also is cut into, that various other Smiths are cut into, that certain business deals are cut into, that perhaps a future Congress if not a future Presidential chair is cut into. It may be only an appendix operation, but it is nevertheless, in this case, a serious and solemn matter.

"So you won't strike or kick," they said, did they? This brings up a hideous suspicion. When people are under an anesthetic they are not responsible. The question with you is, not what you will *do* (you don't care whom you swat), but what you will *say*. Of course, everything you ever have heard or

read of chloroforming and etherizing must needs flood your mind, and particularly the assertion that the patient is liable to reveal that traitorous subconsciousness lurking ready for just such an occasion. Gentle women have been known to babble shockingly, and the levee tough has been known to pray. How are *you* going to break out? Are you a dual personality, the worse half of which is about to ramp around hideously and satyr-like? Jiminy! And will you ever know? Will the Lady-Who-Married-You ever know?

"Fine heart action. You're all right," declares the anesthetist, bluffly, tucking away his stethoscope thing, and sitting behind the top of your head.

There is anointing, for the sacrifice, of nostrils and chin.

"So you won't be burned," explained the accommodating nurse.

Another stations herself by, upon a stool, watch in hand and cool fingers upon your wrist. These attentions are touching—and, since the operation is for only appendicitis, not at all reassuring. While you would not voice the thought, you wish that the Lady-Who-Married-You were near, to hold your hand and to receive your last word and testament.

It is rather pathetic, this scene: a once strong man bound fast upon the flat, hard, white pallet in a secret chamber, with appendicitis ravaging his vitals and these hooded ku-klux figures besetting him to work their will.

But you are about to be launched; for a strip of cloth laid across veils those brave eyes of yours, and a pungent odor assails those quivering nostrils.

"*He* doesn't care. *He's* not nervous," praises a voice, afar.

"N-no, n-not a b-bit," you affirm, through cold sweat, and smiling ghastly out from your mask of cloth.

You wish you had been a better man; that is all.

Surgeons used to do their own anesthetizing (being hospital educated I can talk that word just as fluently as I write it) and jammed the stuff down your exhaust with a rudeness irritating to a sensitive organization. To chew on a bullet was much preferable; or to be hit with a club. What with keeping the chloroform lid on, holding the leg with one hand and cutting

it off with the other, the old-time surgeon had many a busy hour and few moments to devote to polite amenities.

But to-day the details of an operation are fully differentiated. One man dopes, another handles the knife, another the fork, another the spoon. The anesthetist having his own separate fee to earn, goes to work as if aware of the fact and its responsibilities. My anesthetist (it is great to be empowered thus to add to your property list a surgeon or two, an anesthetist, a hospital, and a nurse) *my* anesthetist was a kind of dilettante. He took a real pleasure in the delicacies of his art. His fingers seemed to play in a spiritualistic fashion about my moustache, there was a wafty sensation across the mouth and nostrils, and occasionally a sweetish odor which he apologetically removed whenever I was getting used to it.

This sort of entertainment, as protracted and leisurely courteous as bargain day in an Oriental bazaar, continued apparently for some time; and lying there comfortably upon the pallet, with eyes closed, the anesthetist breathing upon my brow and femininity holding my wrist, I began to wax sleepy; for it had been a fatiguing day. However, 'twould never do to drop off to sleep; the surgeons might then start in under a misapprehension. Ugh! Fancy the mutual astonishment.

So I had better go upon record.

"Doesn't seem to have any effect," I mumble. "What's the matter?"

"Oh, no hurry," soothes my anesthetist. "We'll take our time. They (I knew who *they* were) aren't ready yet, anyway."

Silence. Continued spiritualistic fingerings and waftings.

"Don't let them begin cutting too soon." I have since learned that this injunction by the patient was not original with me. They all say it.

My anesthetist assures that he won't.

More silence, and manipulations as before mentioned.

This is pleasant, being chloroformed—if only the chloroform would take effect. Evidently you are a hard subject to put under. You hope that they are interpreting the difficulty. Perhaps they are, for they seem to be working more persistently, and the wafty odors are somewhat increased. But all that is

accomplished is to make your ears buzz, interfering with the point of the funny story which your anesthetist is now telling to the nurses.

"Sheel fleepy," you warn. "Not chlor'form, though. Jus' tired."

"All right," responds your anesthetist. "No hurry."

The little room is very quiet. Without, in the corridors, is careless laughter, patter of busy feet; but within, a small, silent circle is gravely watching that wondrous and merciful transformation of a quick and sentient being into a living corpse.

"Shleep minute. Wait-bit. Notready."

The buzzing is annoying; it gives a dizzy sensation. Aside from that, your eyes and tongue together are deliciously heavy, and you simply have *got* to take a little nap.

"G'bye. Don't start. Canfeelyet."

You will have to depend upon the other persons in the room to keep the surgeons away while you are helplessly dozing. They will, won't they? Meanwhile, the blackness behind your closed eyes is curiously scintillant with flat sparks; the buzzing of swarming bees in your ears is terrific; and as you gaze and listen, with sudden, sickening swoop you have slipped from the pallet and headlong plunge down, down, down through midnight space. Struggling, pawing, fighting for a way, you rise out of the depths of the Icarian dive, and break the surface. Like butterflies the white caps and sweet faces of nurses flutter above you. Your eyes refuse to focus and wearily you must close them. What's the matter—what has happened—where are you, and why? Why is a mouse? You stammer with thick utterance, appealing generally.

"Where 'm I?"

"In your room."

This is to be digested a moment. Then abruptly a poignant alarm assails. The question quavers weakly, fearfully:

"But they haven't done it yet?"

"Oh, yes." The nurse's voice tinkles seraphic. "It's all over with."

Thank God! And you're alive. The Lady-Who-Married You must be so informed at once.

"What time is it?"

"Eleven o'clock."

Jee-rusalem! Four hours obliterated—wiped off the mental map, leaving trace of not even a dream! Impossible! Or is this itself but a dream? You would like to explore that spot, to see if the news is really true; but you dare not, lest you wake yourself up in the midst of the operation. And as you again open your mouth, in sickly, babyish fashion, the ministering angel in white cap deftly inserts an ambrosial swab—icy cold, wet, and grateful as a drop of water to a Dives. When you shut down upon it as feverishly as a starving kitten, she says: "Don't do that. Don't swallow any. It will make you sick." This diverts you.

Now if one might stop right here, appendicitis, surgically treated, might justly be compared to the eradication of a wart; and scoffers would be right in proclaiming: "Aw, there's nothing to it." No, and there's nothing to jumping off the Brooklyn Bridge until you're in the water.

A surgeon proffered a statement for $1,000 to a parent—or maybe a husband; more likely a husband. And the husband kicked, demanding an itemized account. This promptly came:

For operating .....$ 1
For knowing how 999

So in appendicitis the patient's account should read:

Operation.....Nothing doing
Getting over it.....Wow!

That mingled chloroform and ether so unobtrusive and benevolent in its entrance, during your unconsciousness has turned into a viper in your bosom and makes exit with a sting in its tail. Seems to me that I have read of vipers with horny-sting-y tails; but rather than be accused of nature-faking I will compromise on scorpions. A scorpion, then. Some victims must acknowledge the sting with a series of howls like those of a Comanche Indian or of a mad wolf; others are palely stoical; a few are immune—and the nurse praises:

"You came out beautifully. Just as if you were waking up."

The lightest phase of this "waking up" is about as exhilarating as the morning after the celebration of New Year's resolutions.

Here it is necessary to wax personal again, for this is to be a human document, and the honest confession of a reformed scoffer.

Awakening, I found much to occupy me immediately. I must not swallow that delicious swab; I must ascertain whether the nurse was solitary or in triplicate; and I reeked of ether at every pore—tasting only ether with a tongue which felt like a freshly painted shingle. Presently I discovered that my bed was "up by the head" to the height of two saw-horses, and that I was snugly ensconced in a colicky attitude on my spine, knees well aloft and held there by a trapeze run through under them. Pillows wedged against the soles of my feet nicely perfected the posture—it being "Fowler's position." Dr. Fowler himself died from appendicitis—but they don't tell the patient this until he is well. If he doesn't get well he finds out for himself, no doubt.

From some part of my anatomy a long rubber tube connected with an elevated glass tank six or twenty feet distant (space being still an uncertain quantity); and between times I studied this, wondering whether I was going out or coming in.

Now anybody who insists that appendicitis amounts to "nothing" and that Nature is going to sit calmly by knitting, while an alien force rips through a layer of hide and three or four layers of muscles, and invades a sanctum sanctorum maintained under a strict Monroe Doctrine through ten, twenty, thirty, forty years, is an ass. This, my deluded sir and madam, is an ABDOMINAL OPERATION—and a score of years ago the surgeon who got into the human abdomen and out again without leaving an abscess or a pair of forceps, was deemed not so much skilful as lucky. To-day the abdomen is no longer sacred, and is far better known than the interior of Thibet. But Nature continues to protest.

To cough is hari-kari; to sneeze is perforation by a red-hot poker; to respond to nausea is longitudinal suspension between opposing wild horses.

"Try to sleep," implores the nurse.

I try. There is nothing that I would not do for that nurse, lest she leave me abandoned to my fate. I don't marvel that patients usually would like to marry their nurse, so as to keep

her handy. I close my eyes, and am just floating away—I don't care where—when below there, inside, some imp (Boots. the house-boy, or other mischievous wight) darts from cover and gives the wound a violent twitch.

"I wonder what that's for," he pipes. "Never saw *that* before."

With an electric jump I am wide awake. This amusing game continues indefinitely. Every time I drift off (turn my back, so to speak), that indefatigable scalawag slyly jangles the doorbell.

The painted tongue persists. There never was such a tongue, never. The paint has dried now, and feels more like tar and feathers.

"Can't I have a drink?"

"Yes, I'll give you a drink." And so she does—a teaspoonful of hot water, which I am instructed to swallow slowly.

It has about as much effect on that tarred and feathered tongue as a drop of dew on a hip rubber boot.

This is a new occupation: waiting for that teaspoonful of hot water, which arrives every half hour. One's thoughts dwell upon it, and one listens eagerly for the nurse's step, returning; one's mouth opens, in advance, like a nestling birdie's. To such a plane is reduced a once strong mind.

In the midst of this humiliating pastime the Lady-Who-Married-Me enters timidly, half-smilingly, half-tearfully.

"Dearest!" she says. "How are you?"

"Fine," I say. "Listen. Come closer. Let us sing, 'Little Drops of Water.'"

The nurse makes her withdraw; and she goes, blanched because she deems me crazed by my experiences of the past ten hours.

The dose is doubled to two teaspoonfuls at a time. Nevertheless, despite this generosity in water-rights, the waking dreams of a human being dying on the Death Valley desert obsess the brain. I see again tthe Mississippi River of boyhood (and anyway no other river would have sufficed); as it ripples by raft and sandbar I takes repeated headers into its wet, luscious depths. I stand out on the lawn at home, and let the Lady-Who-Married-Me drench me with the hose. Some confounded

idiot is at the very moment sprinkling the grass outside the hospital window—I can hear the nozzle fizzing. I recall a spring, by a roadside, and a battered tin can upside down on a stick, at its verge, ready for the next thirsty comer. I would trade Rockefeller's millions for a draught out of that old can. But particularly I dwell lovingly upon a series of barrels which used to stand in the shady corners of the runways among the lumber piles of the mill-yards back by that same Mississippi. These barrels were dark and cool and dripping with their contents of bran and water and chunks of ice. A tin dipper lay upon the cover of each barrel. The bran was supposed to render the drink innocuous of sunstroke or stomachache, no matter how hot you were; and when we boys trailed through, burned and perspiring and thirsty, to and from swimming and fishing we halted at every barrel and gulped recklessly the milky mixture. There was plenty for all—for boys and for millhands. Shooting the chutes upon my spine in the boat bed (and never arriving), knees elevated over the trapeze, feet securely tucked against the pillows below, head bolstered upon the pillows above, back curved like a contorted currant worm pierced in amidships, mouth tasting now of sawdust and straw, again and again I sent my astral frame to those barrels adown the piny, shady-cornered runways—but remained behind myself, and accepted dole of two hot teaspoonfuls administered each half-hour: remained behind upon that confounded bed and played birdie.

But this succession of outrages as related were but preliminaries to the big show. I had yet scarcely been conscious of the wound, save when the scullion imp had rung its doorbell to call my attention. The fact is, I believe, that a surgical incision, although long and deep, when clean and sewed and tightly bandaged, is pretty hard to locate by the patient in bed, who has not seen it. The pain has a trick of transferring itself along the nerves and sounding at a distant station. So *my* surgeon, when he had *his* appendix removed, suffered not so much in the abdomen as in the right thigh from hip almost to knee; and I didn't care a rap, in general, for the hole in my lower right angle, but my back and middle front protested violently as if *they* had been cut into. There also was an aggravating lump in my thorax region, like a chestnut burr lodged there,

which the doctor said was "a sympathetic irritation from a little intestinal disturbance." 'Twas mistaken sympathy, then. I tried for days to swallow that lump, but I budged it no more than a chicken budges a grain of corn attached to a thread.

The Lady-Who-Married-You comes in, and you are glad to see her, although considerably preoccupied. The tarred and feathered tongue still wears the shameful livery; the lump in the thorax is still anchored fast; the three (three, now!) teaspoonfuls of hot water half-hourly must be anxiously anticipated.

Until this recent diversion of appendicitis and resultant operation I never realized what an automatic, willing household the human body is; each member willing, even eager, to rush into a breach and help out some other member. Too willing at times. So I found the muscles of the abdomen arching up, with a do-or-die intensity, to protect the wounded tissue and give it a chance to recover, just as though the surgeon's dressings were not placed there and bound tight for exactly that purpose.

'Twas no use trying to relax those foolish muscles. I might as well talk to the wind. They arched so zealously that they drew the back up with them; and soon the back, caring little for what was happening to the abdomen, grew tired of being dragged into the business.

Of all the little annoyances which, *sub rosa*, assail one who is popularly presumed to be taking a vacation with appendicitis, this backache is the most persistently worse—and I employ the phrase advisedly, in defiance of grammarians. Anybody who has been through an operation for appendicitis is entitled to privileges.

You can't turn over upon your right side, for you have about eight inches of dressing there, and that is driven against the wound like a football. You can't turn upon your left side, because that hurts the right side. Moreover, neither position eases the ache, and you are forbidden to turn, anyway. So there you are. All the time those zealous, perspiring abdominal muscles are working like Trojans, each trying to be an Atlas upholding a world. And the back waxes weaker and weaker, tireder and tireder, but is as helpless as any weeping small boy in tow of a shopping mother.

So far little has been said of the wound; I do not mean to omit it. If you had a "bad" appendix, with danger of infection, through an extra hole termed the "stab wound" (gory term) a strip of gauze probably has been tucked in, to the place where the appendix used to be, for drainage; and in about sixty hours it must be extracted. It is six or nine inches long, and has frozen fast all the way down, with a final grip on the backbone. The surgeon hauls it out by quarter-inches; each quarter-inch feels like a block of houses, uneven in height. Since that experience I have sincerely pitied a ship with the anchor chain whizzing through her hawse-hole.

For *I* had that "bad" appendix; *I* had that infernal plug pulled out by the roots; I had every extra on the list save a stomach-pump. I had an infection (notwithstanding two surgeons, a medical man, the nurse, some porters, and the Lady-Who-Married-Me), dropped off, thoughtfully, by that dratted appendix en route to the bottle. But invited to the surface by boiling water delicately dribbled upon the stitch-line from the height of one foot every two hours all night, and a boiling-water bag bound on fast, between times, that the memory might not cool, the micrococcus horde, or whatever it was, made exit with great precipitancy, leaving a gigantic blister and an orifice through the hide gaping wider than a Hottentot's smile.

I had *that*. I also had scissors trimming the gap into charmful symmetry; and a knife paring it so the edges should stick; and stitches crisscrossing it to hold those edges together when they might stick—and until a surgeon's needle, shaped like an adult bobcat's claw, is jammed through one's living hide one does not appreciate how thick that hide may be on even a thin-skinned person.

So, all in all, I can assert that I am competent to tell about the appendicitis cure, from the standpoint of a layman—such being the paradox.

The surgeon comes once or twice a day to inspect his handiwork. This is an event. First the nurse bustles out and in again, with half a dozen granite-ware pans, some wet, some dry. She arranges these mathematically upon the little table beside the bed, fills the interstices between them with jar of boric, jar of sterilized gauze, bottle of alcohol, etc., and from the formid-

able roll of cotton which is your especial property she plucks bolls of the stuff (they tear away with a dry, gritty sound calculated to set one's teeth on edge) and puts them to float in a pan. Then she unpins the broad cotton girdle which cinches you like any pack-mule, and with unexpected strength of wrist and arm peels off a few yard-strips of adhesive plaster—the process laying bare your very soul.

Now strides in the surgeon, sleeves rolled high, fingers dripping suggestively—a personage of extreme caste, he, who must not touch anything that anybody else has touched, not even a door-knob. The wound is unveiled for his gaze; and squinting down along your prostrateness you may see for yourself the suture looking, in its stitches, like the lacing of a football) and whether you have drawn the McBurney incision, stylishly on the bias, parelleling the obliquity of the right hip, or one of a different pattern and more in the middle.

The various instruments jingle in their alcohol bath, and you next crane to note which he selects from the pan—crane with the apprehension of the dental chair. It may be scissors, with which he snips only gauze or adhesive; it may be a diabolical probe; it may be forceps with which to jerk out stitches or to pull them tighter; it may be a tiny knife, insignificant as a pocket nail-cleaner, but gaining upon acquaintance. It may be—and let us hope so—nothing.

The surgeon is, as may be inferred, an important factor in the daily programme, but nearer and dearer to you is the nurse. Much entertainment will be found in trying to surprise her into admitting something. This is excellent mental exercise, for a trained nurse must never, if she can avoid, give out information. My nurse (whom I have reason to believe was born a bright, observant girl) was a perfect foil to the art of cross-examination. I never, even in her most unguarded moments when she slumbered upon her cot at the other side of the screen, was able to gather from her such innocent knowledge as: who had died in that next room, and what of; whether somebody had not sometime died in my room; whether I was going to die myself; how soon I was to get up; whether my case was not the worst in her experience; whether anybody else suffered as much as I; what I had said (if anything) when under the anesthetic; what propor-

tion of appendicitis operations were fatal; who it was that was making such an uproar across the corridor, and whether he had appendicitis; what was that dose she had given me, and why, etc., all being queries of vital moment. But she never admitted even so much as that I was in the hospital. The isolation was supreme.

And amidst the stomachache and the backache, the leg exercises as you constantly slide down and push up, the experimentation with postures each more uncomfortable than the others, the tarred and feathered tongue, the thirst and the imagining oneself under a railroad water tank with the spout full open, the inspection by the surgeon, the tilts with the ingenuity of the nurse, there are the visits, twice a day, from Her, the Lady-Who-Married-You—angel's visits, too few and far between.

However, the post-appendicitis situation, in acute form, does not last forever. Not quite. Eventually Nature becomes reconciled to doing without what she didn't need. The backache is a matter of only a couple of weeks. First your knees are let down from their trapeze; and in due time the bed is put upon even keel. Some day you are given a long, cold drink. It flows through your alimentary canal like a cloudburst down an Arizona arroya. Some day you find (tentatively) that you can blow your nose without tying your solar plexus in a hard knot; and soon thereafter you are emboldened into letting go of that sneeze which you have been holding in leash for a week or two.

Yes, life is becoming sweet once more.

And some day, *some day*, pale, wobbly, striped like a zebra with the trail of the adhesive, out you may go; full of cautions and thankfulness, and with a slight list to the right where you are a little chary yet of the caulking. Out you go, to awaken to the fact that now when you may drink as much and as often as you please you dream no more pleasant dreams of water tanks, and you let sprinkler carts go by without any desire to follow behind them, down the street. This is a disappointment.—*The American Magazine.*

CHRONIC INFECTIOUS ENDOCARDITIS, WITH AN EARLY HISTORY LIKE SPLENIC ANEMIA

By Sir William Osler, Bart., M.D., of Oxford.
Regius Professor of Medicine, Oxford University.

This patient, under the care of my colleague, Dr. Brooks, illustrates a remarkable and important type of endocarditis, the diagnosis of which, in its early stages, presents unusual difficulties. How serious its difficulties are you may judge from the fact that of 10 cases which I reported in 1909 (*Quarterly Journal of Medicine,* Vol. 2), in not one was the nature of the disease recognized for weeks, and sometimes for months after the onset of the symptoms.

This robust-looking man, aged thirty-three, the healthiest looking man in the wards, was sent in last May by Dr. Waters with purpura and anemia. He had not been very well for a month, but with nothing very definite, and he came on account of weakness and the spots on his leg. He looked bad, was anemic, with a swollen abdomen, puffiness of the ankles, and the legs thickly peppered with a fresh crop of purpura. The spleen was enlarged, reaching nearly to the navel; the liver was normal. There was a soft apex systolic murmur, which we naturally associated with the anemia. He had a temperature of 102.5° F. The blood-count by Dr. Kemp showed R. B. C. 2,700,000, hem., leucocytes 8,000; the differential count gave: polymorphs 40, large lymphocytes 45, small 13, myelocytes 2.

As it was not unusual for these so-called blood diseases to begin with purpura, I thought that the case was one of splenic anemia, to me, at any rate, a well-characterized type of disease with which the anemia is directly associated with morbid changes in the spleen. Upon this point I need not enter here, only to remind you that among growing evidences for the recognition of this entity is the fact that removal of the spleen is followed by permanent cure.

The patient remained in the hospital until August 22nd, during which time he had several attacks of purpura, but the

general and blood conditions improved, and the spleen reduced slightly in extent. During his stay in hospital he had a daily rise of temperature, usually to 102.5° F., occasionally to above 103°. This, with the purpura, were points which I noted as unusual in any instances of splenic anemia that had come under my care. Then he went out for a few days, to return on August 26th.

Now we come to a totally different set of manifestations. As I told you, on admission he had a soft mitral murmur. This had increased, and within a fortnight there appeared a well-marked systolic murmur at the aortic region and, what is much more important, a soft diastolic murmur. A little before he left the Infirmary he had a severe pain in the left groin, and on his return a tender swelling was noticed in the region of the femoral artery just below Poupart's ligament. There was no interruption in the circulation in the leg, nor change in its color. The spleen was still enlarged, reaching more than a handbreadth below the costal border. The temperature was irregular and daily reached as high as 103° F. These features, of course, put an entirely different construction on the case, and it was evident that he had an infectious endocarditis with embolic features. Cultures were made from the blood by Dr. Gibson, from which have grown a streptococcus which has the characters of the form described by Libman in connection with these cases. I must say that this sequence of events was quite outside my experience, but there are one or two similar cases in the literature. Only the other day Dr. Parkes Weber, into whose clinical net come all sorts of peculiar and instructive cases, sent me a paper, in which is described a case of malignant endocarditis, the early features of which resemble those of splenic anemia.* His patient was a man aged twenty-eight, who had been treated at several London hospitals, with a diagnosis of splenic anemia. In October, 1908, when admitted to St. Thomas' Hospital, the spleen reached half-way between the navel and the pubes. He had had attacks of purpura, had had oozing of blood from the gums and slight epistaxis. In October, he had a blood count of three and one-quarter millions, color index :9, and leucocytes 1,360. He came under Dr. Weber's care in July, 1909;

*British Journal of Dermatology, February, 1910.

he looked pale and wasted, with a remarkable pigmentation of the skin of the legs, due to repeated hemorrhages; the spleen was greatly enlarged, and the liver was enlarged. R. B. C.'s 1.700,000, leucocytes 1,900, color index .9. There was a loud systolic murmur at apex; he had an irregular fever, and died on July 29th. There was a remarkable condition of the heart, old thickening of the mitral valve, to which was adherent a soft organized thrombus. Growing in the left auricle from the septum was a large endocardial excrescence 70 mm. in length by 35 mm. The spleen weighed 110 oz.

The patient before us has, as I remarked, an unusually healthy appearance. He has been on the "gallery" for some weeks, and looks not only sunburnt, but plethoric. Indeed, it is not often one sees a case in which the facies is so entirely misleading, or in which there is so striking a contrast between head and feet, for on looking at his legs, the first thing which attracts attention is the swollen edematous condition of his ankles, and up and down the skin of the legs are spots of fresh purpura. The abdomen is somewhat distended, and the spleen is a full hand-breadth from the costal margin. The apex beat is difficult to feel; there is no thrill; the cardiac flatness is increased to the left; there is a loud systolic murmur, and up and down the sternum a loud to-and-fro murmur which has increased in intensity during the past few weeks. Just below Poupart's ligament there is a wide area of pulsation, and there is to be felt a distinct aneurysmal dilatation in the vessel. The anemia has improved; R. B. C.'s 3,520,000, hem. 60 per cent., leucocytes 4,480..

As is usually the case, great difficulty was experienced in getting sub-cultures of the patient's own streptococcus, so that he has had during the past three weeks repeated injections of another strain, with, I am glad to say, a considerable improvement, shown at any rate by a reduction in the fever. He has none of those peculiar, painful, ephemeral cutaneous nodules which I have described as almost pathognomonic of this form of endocarditis; but he has had one or two very peculiar areas of persistent erythema, one on the ulnar side of his left palm, and another on the under surface of the left big toe. The patient's appetite is good, and he feels very comfortable. There is a

slight amount of albumin in the urine, and I forgot to mention that on admission he had a small quantity of blood in the urine.

There were one or two other interesting features in the case. In the middle of August he had a most extensive herpes on the right flank, the individual vesicles of which became purpuric. On several occasions he has had bleeding from the gums, and throughout the illness occasional outbreaks of purpura. At first the vaccine treatment, which was carried out by Dr. Gibson, seemed to reduce the fever, but subsequently it did not appear to have any special influence, and this accords with my previous experience, for I have not seen a case in which any permanent benefit has followed.

The patient died on the 13th, having had dyspnea for several days, but no increase in the fever. The cheeks and nose became covered with petechiæ, and shortly before death, which took place suddenly, there was paralysis of the right arm.

The post-mortem made by Dr. Gibson showed a very interesting combination of lesions, and the specimens are here for your inspection. He had, as you see, in the lungs a terminal miliary tuberculosis, the origin of which was determined to be a fresh tuberculous erosion of the thoracic duct from an adjacent lymph gland. The heart is large, particularly on the left side. The mitral valve has no vegetations. I would recall to your minds the fact that he had a loud apex systolic murmur, and a well-marked rumbling presystolic (Flint murmur). Two of the aortic segments present no single portion of a normal valve, being covered with vegetations and erosions. There is a small patch on the ventricular wall just below the aortic ring. The aorta itself is normal. In the left femoral artery there is a small aneurism, the size of a walnut. The spleen is fully four times the normal size, and presents at its upper third this huge infarct, one of the largest I have ever seen, extending nearly through the organ, and having a superficial area the size of the palm of one's hand. These were the important lesions. The kidneys, as you see, are swollen and in a state of diffuse nephritis.

This patient's history extended over a period of between six and seven months, and the remarkable thing is that he should have at first presented the features of anemia. Some of you remember seeing him the day after his admission, when the

pallor, the purpura, the big spleen, seemed to point definitely to a blood disease. The heart was not enlarged; there was only an apex murmur, such as one would expect in his state. He had one severe attack of abdominal pain about the end of July, which possibly may have been associated with this enormous infarct of the spleen. It was not really until his readmission that the nature of the case was settled by the occurrence of an embolic aneurism in the femoral, and the appearance under observation of an aortic diastolic murmur. I confess I thought the mitral-valve segments were also involved, but the case only illustrates the fact that no intensity of systolic murmur, nor the presence of a presystolic rumble guarantees the existence of a lesion of these segments. They were in fact the not uncommon auscultatory signs at the apex associated with aortic insufficiency, to which the late Austin Flint called attention.

Now briefly to summarize certain of the important features of this type of endocarditis:

1. *Chronicity.*—Six, eight, ten, twelve, and even for thirteen months, the symptoms may persist, and there are instances of even longer duration. It has been well called endocarditis lenta.

2. *Latency.*—For months there may be no indication whatever of endocarditis. I mentioned at the Birmingham meeting of the British Medical Association, in the discussion on obscure types of fever, a case which I had seen recently with Dr. Relton of Rugby, in which fever had persisted for six or seven months—fever and nothing else—and the diagnosis was not possible until the cardiac signs became pronounced.

3. *The fever* is of the so-called septic type, the daily rise reaching to 102.5° or 103° F. Month after month it may not vary the fraction of a degree. The most remarkable record I saw was in the first case of this kind I reported—a patient of Dr. Mullin's, of Hamilton, whose sister, a trained nurse, had lined the walls of the room with a temperature chart extending over a period of more than a year. Chills may occur at intervals, but the cases may run the entire course without them. A special septic feature of the disease is the anemia which in this case so early led us astray.

4. *Embolic attacks* which are present in a considerable num-

ber of cases, and which may give the first intimation of the true nature of the trouble. In this case, it was the femoral aneurism which at once suggested to Dr. Brooks the existence of endocarditis, and a few days later a murmur of aortic insufficiency was present.

5. *Ephemeral cutaneous nodes,* which are, I think, pathognomonic. They are small swollen areas, usually about the hands or feet; raised, reddish nodes, not unlike an ordinary weal, painful, but they disappear in the course of a day or two. Possibly the areas of persistent erythema, which this patient presented, may have been of embolic origin.

6. *Blood Cultures.*—In a majority of all cases, organisms are present in the blood, and may be grown on appropriate media. The studies of Schotmueller, Libman and others have determined that the common organism in this type of subacute infective endocarditis is a streptococcus, known as *mitior* or *viridans,* because the colonies are those of a poorly-growing organism and produce a green pigment on blood-plates. But not only this organism may be associated with these chronic cases, the influenza bacillus, the pneumococcus, and the staphylococcus may also be present.

7. Lastly, the endocarditis is pathologically unlike the ordinary ulcerative form. There are usually large, firm, hard, greyish-yellow vegetations projecting from the valves like condylomata, and a special feature in many cases is their widespread extension on the mural endocardium.

A glance at the condition of these aortic valves neutralizes at once any disappointment one may feel at the failure of the vaccine treatment—one cannot expect miracles.

THERAPEUTIC NOTES ON "COLLOSOL" ARGENTUM AND "COLLOSOL" HYDRARGYRUM (CROOKES)*

These very recent additions to therapeutics possess some remarkable properties. Foreign investigators have described their action as being parallel with organic ferments, they have even been termed "metallic ferments." Their action appears to depend more upon their physical characteristics than upon their specific effects as metals. The particles of metal present are in an extremely minute state, they pass readily through the pores of a filter, and are invisible under the ordinary microscope. By ultramicroscopic examination these particles are seen to be remarkably even in size, and they exhibit marked Brownian movement.

An interesting letter from C. E. A. Macleod, F.R.C.S., published in the *Lancet,* February 3rd, 1912, advocates the use of chemically prepared colloid metals—"Collosols"—as against the electrically prepared colloids; the latter made by Bredig's method will not keep, and various other methods of manufacture introduced on the Continent possess the same serious defects. "Collosols," the new solutions of colloid metals, are the result of a long series of experiments conducted in the Crookes' Laboratories to obtain stable colloids. They are made by an entirely novel chemical reaction, and, as will be seen from the independent report of Professor Emil Hatschek they are eminently stable, and, what is of particular importance, *they are not precipitated by sodium chloride* (which happens instantly with solutions made by electrical methods), *thus, when injected hypodermically or intravenously they remain stable and are not immediately precipitated by the blood.* Mr. Macleod, in his letter refers to the extraordinary results he obtained with these solutions, "even when diluted as low as 5 or 10 parts metal per million, and in some cases as little as 1 part of silver per million, has proved fatal to bacteria in a few minutes. The bacteria experimented with were B coli communis, B. tuberculosis, diplococcus gonorrhea, various forms of staphylococcus and streptococcus, and many others."

*Oppenheimer, Son & Co.

He mentions that "Collosols" "may be applied hypodermically, intravenously, by the mouth or topically, and being nontoxic, the dose hypodermically is unlimited, and experimental injections of 1 to 2 cc. gave little or no local or general symptoms." His results in actual practice are very remarkable. He states:—"I have treated the following cases with marked and surprising success. *Topically*—Septic and follicular tonsillitis, Vincent's angina, phlyctenular conjunctivitis, gonorrheal conjunctivitis, spring catarrh. Impetigo contagiosus, acne of face and body, septic ulcers of legs, ringworm of body, tinea versicolor. Soft sores, suppurative appendicitis after operation (the wounds cleaned rapidly). Pustular eczema of scalp and pubes, chronic eczema of external meatus of ear with recurrent boils, and also chronic eczema of anterior nares. Offensive discharge in case of chronic suppuration in otitis media, bromidrosis of feet and axillæ. Blind boils of neck. *By injection*—Gonorrhea and chronic cystitis (local), boils, epididymitis. In above cases I found that symptoms were relieved rapidly." He concludes that "'Collosols' are quite equal, if not superior, to electrically prepared colloids in clinical effect." He calls the attention of the medical profession to the advantages of treatment by chemical Collosols, and he states that his clinical experience entirely corroborates that published in the *Lancet*, January 13th, by M. Duhamel.

The following report from the *British Medical Journal*, dated February 3rd, 1912, states: "*Collosol" Hydrargyrum* is a brownish opalescent liquid of slightly alkaline reaction: our tests showed that no precipitation was caused by boiling it, and on evaporation to dryness in a water bath the residue dissolved easily on again adding water, the solution, however, being no longer opalescent, but clear. A portion of the dry residue gave on ignition the odor of burning albuminous matter, showing that the protective colloid used to prevent the mercury being thrown out of solution is of nitrogenous nature. The liquid was blackened by hydrogen sulphide, but no precipitate was formed; metallic copper immersed in the solution gradually acquired a coating of mercury.

"*Collosol" Argentum* is a red-brown opalescent liquid and contained a small deposit, which consisted principally of silver

chloride. Boiling the liquid increased the opalescence to a turbidity, but on then filtering through a paper of loose texture nothing solid remained on the filter. Sodium chloride caused no change in the solution, and even hydrochloric acid only slightly increased the opalescence. On evaporating to dryness on the water bath and again taking up the residue in water, some finely-divided silver chloride remained undissolved; on igniting a portion of the residue the same odor was obtained as from the mercury preparation.

Both solutions are intended for use by hypodermic injection, or for administration by the mouth, and it is stated they are alterative, antiseptic, and bactericidal.

Perhaps the most remarkable property of "Collosols" is their absolute freedom from toxic effects to the human organism, notwithstanding their extreme bactericidal power, thus approaching an ideal which has so long been sought in medicine for a preparation that, while fatal to pathogenic micro-organisms, is harmless to the host. The significance of this needs no comment.

PERSONALS

Dr. T. Alexander Davies, who has been doing special work in Oto-Laryngology in Berlin and Vienna during the past four months, has resumed his practice at 56 Wellesley St., Toronto.

Dr. J. H. Elliott has returned from his summer practice on the Muskoka Lakes. On October first he moves to 11 Spadina Road, confining his practice to office and consultation work in internal medicine, with special reference to diseases of the chest.

Correspondence

The Editor cannot hold himself responsible for any views expressed in this Department.

TYPHOID VACCINES

To the Editor:—

About six years ago the writer began to use vaccines in the treatment of typhoid fever. Since that time he has thus treated more than one hundred cases, and has obtained numerous articles upon the same subject, written by physicians in various parts of the world. It seems possible, however, that some may have escaped notice. He also realizes that many of the profession may have treated some cases without reporting them. A paper upon the subject is now in the course of preparation. In this it is earnestly desired to incorporate reports from a large number of cases—good, bad and otherwise. He accordingly makes the following request to the readers of this journal:—

Will anyone who has used vaccines in the treatment of typhoid fever, whether but one case or more, kindly communicate to him that fact, accompanied by name and address of the reporter. If the results have already been reported, a note of the journal in which they appeared will be sufficient. If they have not been reported, a short blank form will be sent to the physician to be filled out. Due credit will be given in the article to each person making a report. If any physician happens to know of other confreres who have any such cases, it will be appreciated if he sends their names, as they may not happen to read this note. It is hoped that by this means a sufficient number of cases may be collected to somewhat definitely settle the now mooted question whether vaccines are or are not of benefit in typhoid therapy.

Reports of cases will be accepted at any time in the future, but preferably by November or December of the present year.

Kindly communicate with Dr. W. H. Watters, Director of the Department of Pathology and Bacteriology, Evans Institute for Clinical Research, Boston, Mass.

Obituary

DR. JOHN JAY TAYLOR

The passing of Dr. Taylor has made this world just a little more lonely. The rare gentleness, the patience and the gleam of humor that made him master of himself and of the moment is seldom found in this restless age. He bore the bitter, hopeless pain of his malady, cancer of the tongue, in the same cheerful way he did the joys that came into his life, and so at his seaside home at Ocean City, N.J., he responded trustfully to the call of the Pilot. Dr. Taylor was born in Indiana, but came early in life to Philadelphia, where he studied and conducted a large practice and afterwards became the founder and editor of *The Medical Council*, which speaks of his tireless energy and wisdom. In the club and social and philanthropic life of Philadelphia he always enjoyed a place. To his family and his brother, Dr. Charles Taylor, editor of *The Medical World*, of Philadelphia, we offer our sympathy and the realization of a friendship that feels the world is a better place because John Jay Taylor lived in it.

W. A. Y.

The Physician's Library

BOOK REVIEWS

Pharmacology and Therapeutics for Students and Practitioners of Medicine. By HORATIO C. WOOD, JR., M.D., Professor of Pharmacology and Therapeutics in the Medico-Chirurgical College; Physician to the Medico-Chirurgical College; Second Vice-President of the Committee of Revision of the U. S. Pharmacopeia. Philadelphia and London: J. B. Lippincott Company.

The author has taken great pains in the classification of drugs, and this enables the enquiring student to ascertain with the least difficulty any information he may need. Complete and up-to-date knowledge can only be obtained in this manner. The combining of pharmacology and therapeutics is absolutely necessary in order to have the most comprehensive knowledge of drugs, and this the author has done concisely and as perfectly as it is possible to do. A good book and well arranged. A. J. H.

The Extra Pharmacopeia of Martindale and Westcott. Revised by W. HARRISON MARTINDALE, Ph.D., F.C.S., and W. WYNN WESTCOTT, M.B. Lond., D.P.H., H.M.S., Coroner for North-East London. Fifteenth edition. In two volumes. London: H. K. Lewis, 136 Gower Street, W.C. 1912.

Vol. 1. Anything worth knowing about materia medica, pharmacology and therapeutics, and which is not found inside the covers of an official work in materia medica and therapeutics, may be confidently sought for in this wonderful compilation. The supplementary list of drugs is lengthy, so lengthy indeed, that, perforce, one cannot doubt the wisdom of keeping it in a supplementary condition. There is a synopsis of the Indian and Colonial addendum (1900) to the British Pharmacopeia of 1898. We note a useful chapter on vaccines and antitoxins, also another

chapter on organotherapy. A number of good tables are included: Neutralization table, table of infectious diseases, thermometric equivalents, thermometric equivalents within clinical limits, a general index and postlogical table, a therapeutic index of diseases and symptoms, a list of poisons and antidotes, add much to the value of the book.

Vol. 2. As it appears in the introductory, the second volume of the extra pharmacopeia is an addendum to Vol. 1. In it are contained matters mostly of an analytical and experimental description. At the end of this volume several glossaries (Danish, German, French, Portuguese, Spanish, Italian), of words and phrases likely to occur as directions in foreign prescriptions are published. J. J. C.

Arterio-Sclerosis; Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis and Treatment, with a special chapter on Blood Pressure. By L. M. WARFIELD, N.B., M.D., Associate Professor of Medicine, Wisconsin College of Physicians and Surgeons, Milwaukee. Introduction by W. S. Thayer, M.D., Professor of Clinical Medicine, Johns Hopkins University. Publishers: C. V. Mosby Company, St. Louis. 1912. 220 pp. $2.50.

This work is accurate, scientific and scholarly. It is compendious and modern, and presents in form sufficiently brief for the busy man, yet full enough for the student's needs, all that one need know upon a subject of steadily increasing importance. J. T. F.

The Medical Diseases of Children. By REGINALD MILLER, M.D. (Lond.), M.D., C.P.; Physician to Paddington Green Children's Hospital, St. Mary's Hospital, etc., etc. Bristol: John Wright & Sons.

This work is to be higly commended. The classifications are clear, terse, and not too diffuse. The chapters on Rheumatism, its bacterial bearing on the disease, and many manifestations, are capital and well worth study of every practitioner. The letterpress and illustrations are truly excellent and reflect great credit on the publishers. We can highly commend this work to any student or practitioner looking for a reliable handbook on diseases of children. A. B.

Insomnia; Its Causes and Treatment. By Sir James Sawyer, F.R.C.P., etc., Birmingham. Second edition; pp. 107. Cornish Bros., Birmingham.

Few medical writings nowadays combine, as this brochure does, the old-time classical charm of diction with freedom from what one may call modern professional "patter." When the writer essays to be "scientific," he does not shine, but in his practical clinical suggestions he is refreshing, and a sound guide in the maze of modern hypnotic drugs. The hour or so required for the perusal of this little book leaves one with literary taste well satisfied and capacity of service to his patients well enhanced. J. T. F.

Pharmacology; Action and Uses of Drugs. By Maurice Vejux, M.D., Ex-Instructor of Pharmacology in the Medical School of Harvard University. Second Edition. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1912.

In this edition the author has attempted to incorporate all new facts in pharmacology or in pharmacotherapy which have been developed since the previous edition. A good book for pharmacist or medical student who has not sufficient time to delve into larger volumes. A. J. H.

Differential Diagnosis. Presented through an Analysis of 385 cases. By Richard C. Cabot, M.D., Assistant Professor of Clinical Medicine, Harvard Medical School. Second edition. Second edition revised. Octavo of 764 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1912. Cloth, $5.50 net. Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

When a book has been reprinted three times and a new revised edition issued within a year, the reviewer must acknowledge that there has at least been a demand for the author's publication. The book is not a comprehensive treatise on any special phase of internal medicine, but in a conversational style discusses some 385 cases occurring in practice.

The cases are grouped under the main presenting symptom, *e.g.*, headache, lumbar pain, epigastric pain and eight other

regional pains, other chapters headed fever chills, coma, convulsions, cough, vomiting, weakness, dyspnea, etc. Giving symptoms and principal physical findings, the differential diagnosis is discussed, giving the reader an opportunity to follow the writer's method of reasoning. The reader has as well an opportunity to form his own diagnosis before this is given, as determined by the author.

It is a delightful book to pick up in odd moments, and should help the physician in working out diagnoses in obscure cases. It will be especially helpful to the man whose diagnostic reasoning is faulty.

We heartily recommend the book. J. H. E.

GRAPE JUICE INVIGORATING TO THE SICK *

In order to be able to procure a good grape juice, it is most important that care be used in the choice of the fruit to be used. In the best vineyards, the bunches of grapes are carefully sorted, the ripest being put aside and pressed by themselves, though in some places even the individual bunches are analyzed and the best berries cut out with scissors, to be used separately. Just such care as this is exercised by Mr. E. D. Smith, of Winona, Ontario, who manufactures one of the best grape juices in the province—all of his fruit is picked, so that the grape juice turned out from his factory is rich in color, mellow in odor and stimulating in effect. This grape juice is found exceedingly palatable to the sick, containing just enough stimulating quality to be beneficial to those convalescing from illness. In warm weather, physicians will find Smith's Grape Juice *particularly beneficial* when *iced,* more especially in cases of fever, and also in gastric affections—medical men know themselves that many so-called grape juices are strongly fortified and for that reason are robbed of their beneficial effect to the sick. Smith's Grape Juice *is the pure article,* and *will be found to be all that it is represented.*

*Publishers' Department.

LISTERINE

Listerine is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils.

After the volatile constituents have evaporated, a film of boric acid remains evenly distributed upon the surfaces to which Listerine has been applied.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues ; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

In the treatment of summer complaints of infants and children, Listerine is extensively prescribed in doses of 10 drops to a teaspoonful.

In febrile conditions, nothing is comparable to Listerine as a mouth wash ; two or three drachms to four ounces of water.

"The Inhibitory Action of Listerine," 128 pages descriptive of the antiseptic, may be had upon application to the manufacturers,

LAMBERT PHARMACAL COMPANY,

Church and Gerrard Streets Toronto, Ontario

MULFORD'S BACTERINS—A REVISION OF PRICES

In order further to popularize the demand for Bacterins (Bacterial Vaccines), and enable physicians to make more general use of these products, we call attention to the downward revision of prices on Mulford Bacterins, effective August 5th.

The Mulford Bacterins are in every case "polyvalent," which means that the bacteria contained in a Bacterin, although of the same species, are obtained from many different sources. For instance, Strepto-Bacterin is polyvalent, the bacteria used for its preparation are all streptococci and are isolated from different patients suffering with streptococcic infections, among which may be mentioned puerperal sepsis, general septicemia, erysipelas, tonsillitis, empyema, cellulitis, etc.

A number of the Mulford Bacterins are "mixed," by which is meant that they contain the various bacterial species generally present in a mixed infection. For instance, the mixed Vaccine of chronic gonorrheal infections, besides the gonococcus contains various staphylococci, colon bacilli streptococci, and other organisms isolated from cases of chronic urethritis and prostatitis.

In some cases, diseases, from their inception, are due to mixed infections, while in many others the infection becomes a mixed one as the disease develops. Past experience and results have fully established the advantages claimed for these "polyvalent" and "mixed Bacterins."

WHY THE "PARKYTE" IS THE BEST AND MOST PRACTICAL SANITARY CHEMICAL CLOSET ON THE MARKET

1. Because it is made of germ proof sheet metal, with hardwood birch top, finished in mahogany, highly polished.
2. Because the tank is taken out from the front, without removing the cover, thus eliminating all kinds of trouble in removing vent pipe, unscrewing bolts, etc.
3. Nothing complicated—no chains, traps or other useless appliances to get out of order.
4. Because it is fitted with our Special Cushion Diaphragm Trap, which makes it absolutely air-tight when not in use.
5. Because we guarantee our "Parkyte" Closet, and will replace any parts found defective free of charge. This is the only closet on the market to-day carrying a guarantee at all.
6. Because there is no burning to do.
7. Because the inventors have improved on every other closet now on the market.
8. Because it may be placed in any part of the house, store, school, hotel, etc. No excavating—no plumbing—no water-works and sewage.
9. Because we use a Liquid Chemical which will not destroy the tank.
10. Because with ordinary care it will last a lifetime.

The Parker Whyte Co., Limited, Winnipeg, Manitoba.

The Doctor

in his unselfish work for others, often fails to apply for his own benefit, the valuable knowledge he continually renders, in service, to his patients.

Caffeine—the drug in coffee and tea—is as harmful to the Doctor himself, as to others.

If habitual coffee and tea drinking cause various aches and pains —insomnia—precordial oppression—nervous irritability, etc., in your patients, why not the same unpleasant action of this drug in your own case, Doctor?

Postum, made of clean hard wheat, including the bran coat with its natural content of the valuable "wheat phosphates," has become a real boon—not only to thousands of former sufferers from "caffeine-poisoning," among the laity, but to the Doctor himself.

And now convenience and improved flavour have come with

Instant Postum

It is **regular** Postum in concentrated form—nothing added.

It is prepared **instantly** by stirring a teaspoonful in a cup of hot water and adding sugar and cream to taste.

Instant Postum presents a palatable beverage rivaling Old Government Java in color and taste, but absolutely free from caffeine or any other harmful ingredient.

A regulation size, 30c. tin of Instant Postum will be sent to any Registered Physician free upon request.

Canadian Postum Cereal Co., Ltd., Windsor, Ont.

FARWELL & RHINES' RELIABLE PURE GRAIN SANITARY SPECIALTIES

"CRESCO FLOUR."—A flour for Dyspeptics, mild cases of Kidney and Liver troubles, Obesity, Debility, Convalescence, etc. Many Diabetics claim to find it of great service, and all they require.

"Special Dietetic Food."—A flour for Dyspeptics and cases of Kidney and Liver troubles requiring rather strict diet, at medium price.

"Gluten Flour."—A flour for Diabetics, and marked cases of Acid Dyspepsia, Intestinal Indigestion, Obesity, Rheumatism, and ills arising from excess of Uric Acid, containing much more protein than required by the U. S. Pure Food Law.

"Health Flour."—Contains the elements most essential to the growth and nourishment of the body, with *No Bran.* Valuable for all who need a strong, clean, reliable flour, for general use.

"Cresco Grits."—A clean, pure wheat, breakfast and dessert cereal, highly nutritious,—contains no bran, (so largely found in other foods), and has a much larger per cent. of protein.

"Barley Crystals."—From the heart of barley. The unique, soothing and emollient quality of this grain, above all others, is well understood, and also its intrinsic value as diet in cases of Irritable Stomach and Intestinal or Kidney troubles, and Bright's Disease. Delicate and delicious in flavor—an equally attractive breakfast and dessert cereal for those in health.

THE McLAUGHLIN ELECTRIC CAR

THE McLaughlin Motor Car Company, of Oshawa, Canada, recently announced that they were in a position to supply one of the finest electric cars obtainable. The model is that of Rauch and Lang as built in the United States, and which car has met with a long series of triumphs. This car has established an undoubted superiority over other electrics, and the McLaughlin Company take some degree of pride in announcing to the medical profession of the Dominion the conclusion of their arrangements, whereby they are able to offer them an exact duplicate of this handsome motor. The manufacturers are prepared to guarantee an increased distance capacity, whereby their motor will run for eighty miles on one charge. The McLaughlin electric is exceedingly simple in operation and always under absolute control. It has a style and refinement that appeals immediately to people of taste and judgment. The McLaughlin electric is noiseless in operation. Its upkeep is exceedingly inexpensive, and, from the standpoint of cleanliness, is perfect. The McLaughlin electric is furnished with a shaft or enclosed chain drive, both drives being noiseless, efficient and strong. The car carries two positive brakes, making it almost accident-proof. The car sells at from $2,600 to $3,500, according to style of battery equipment. Full information can be obtained from the McLaughlin Motor Car Company, Oshawa, or from the Toronto Branch, at 128 Church Street.

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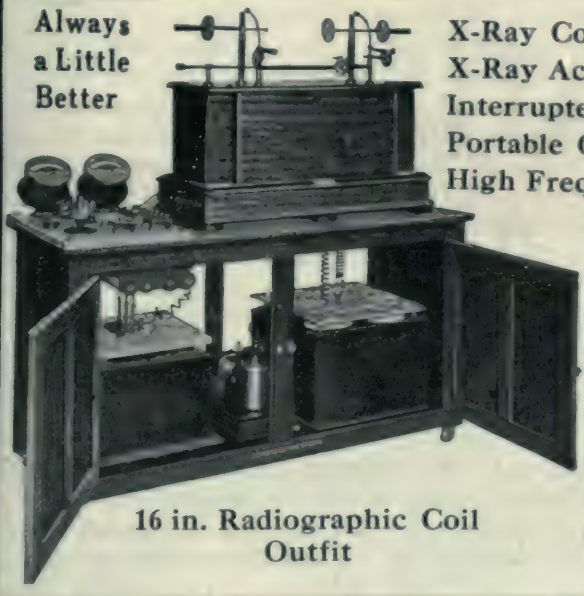
Always a Little Better



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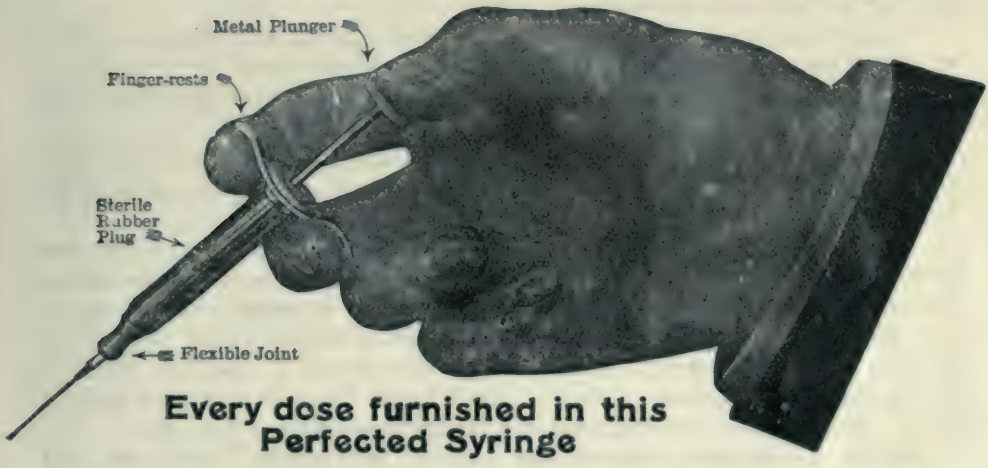
CERVICAL RIB

Cervical rib, its anatomic relations and the disturbances to which it may give rise are described by E. S. Evans, Grinnell, Iowa (*Journal A. M. A.*, April 13). It starts from the seventh cervical vertebra and if it joins the sternum or first rib the scalenus anticus muscle is attached to it. In these cases the subclavian artery and the nerve-trunks are angulated with consequent nervous and vascular disturbance. When long enough to be clinically demonstrated a cervical rib will appear as a rather hard tumor in the supraclavicular region at the root of the neck, usually on the left side. It may give rise to pain of the dull aching variety and frequently most marked over the ulnar distribution, aggravated by the use of the arm and by moderate degrees of cold and relieved by raising up the arms. Hyperesthesia, similarly distributed but sometimes over the whole arm, may occur and is frequently associated with the other two symptoms mentioned. The muscles supplied by the ulner nerve are notably liable to atrophy. Respiratory disturbance due to the irritation of the phrenic nerve in its course along the scalenus anticus by a long cervical rib is believed to be a possibility, and dysphonia, cough, and even laryngeal paralysis, are occasionally noted from pressure or irritation of the inferior laryngeal fibres by the rib or the arterial dilatation it causes. Vascular phenomena depend in part on a constriction of the artery between the rib and the scalenus anticus and in part on vasomotor influences not clearly understood. Cyanosis or blanching may occur, but compression of the artery does not always account for it. "The salient points in the diagnosis are: (1) the X-ray; (2) ischemia, with cramps in the hand, persistent or continuously intermittent; (3) pain in the arm, gradually increasing over a considerable period of time, aggravated by moderate cold and by use, and alleviated by elevation; (4) brachial neuritis, especially of ulnar distribution, with atrophy of the interossei and the thenar and hypothenar eminences; (5) a small, firm, pulsating tumor in the supraclavicular region with or without accompanying symptoms of pain, atrophy, etc., is, nine times in ten, a cervical rib. It is estimated that only about 10 per cent. of cases of cervical rib have any symptoms at all. It must be differentiated from (1) aneurysm of the carotid, subclavian or vertebral arteries; (2) brachial neuritis; (3) bursitis of the subcapsular or subdeltoid bursæ; (4) occupation neurosis." The treatment is obviously surgical and the results usually satisfactory in the cases that have produced symptoms.

Invalid Stout.—The attention of the readers of this journal is called to a preparation of undoubted merit—the advertisement of which will be found on page v of this issue. The preparation referred to is *Invalid Stout* as manufactured by the Dominion Brewery Co., Ltd., of Toronto. Physicians know of the nutritious and stimulating properties of a well-made stout and how valuable it can be as a medicine, especially to patients who are anemic and run down from any cause. The manufacturers ask the medical profession to examine into the merits of their article, and, when found to be as represented, suggest that they try it in suitable cases.

Mulford's Antitoxin and the New Syringe



Every dose furnished in this Perfected Syringe

ADVANTAGES OF NEW SYRINGE: ASEPSIS, contamination impossible.

POSITIVE WORKING: The metal plunger screws into the rubber plug, adjusting pressure and making action positive.

Metal finger-rest with rubber guard at top of syringe prevents any possibility of syringe breaking or injuring operator's hand.

Needle attached with flexible rubber joint permits motion of patient without danger of tearing the skin—a great advantage in administering to children.

Our new adjustable rubber packing possesses great advantages; it is readily sterilized, does not harden, shred, absorb serum or become pulpy.

Simplicity and accuracy—no parts to get out of order.

Mulford's Antitoxin is Accepted Everywhere as THE STANDARD

The higher potency enables us to use much smaller syringes. Minimum bulk—maximum therapeutic results

BROCHURES AND WORKING BULLETINS SENT UPON REQUEST

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THE TREATMENT OF DYSMENORRHEA

We extract the following from an interesting article by Dr. R. J. Smith, in *The Wisconsin Medical Recorder*:

In the treatment of this painful affection, the underlying element of all dysmenorrheas, spasm, must be recognized.

In pain due to uterine irritability, especially if associated with profuse flow and sensation of weight in the back and lower abdominal region, macrotin is the indicated remedy.

In ovarian irritability, the flow too scant or too profuse, and dark and clotted, anemonin is uniformly successful in relieving the pain. It is of great benefit in sudden suppression of the menses due to cold, and aconitine (Abbott) will assist its action here. It will be found most useful in persons who are nervous and depressed.

Gelseminine may be added to either remedy for its antispasmodic effect on the hypogastric plexus. It allays nervous excitement. It is indicated in restlessness, when the patient has flushed face, bright eyes, and contracted pupils.

Hyoscyamine will overcome the cervical spasm, and is usually necessary during the attack. These remedies should be given in small oft-repeated doses to effect, either physiological or remedial.

The Uterine Sedative and Nervine Compound, devised by Dr. Abbott, has proved of great service in the class of cases resulting from exposure during the period. It acts quickly and efficiently in all spasmodic cases, two or even three tablets being given every hour or two with hot drinks. This combination may be given several days before the period is due, and replaced during the intermenstrual period by the Uterine Tonic formula devised by Dr. Buckley. These two combinations should be continued for months.

Where the mucosa, vaginal and uterine, is "weepy," hydrastin and viburnin are curative. In this condition there is a constant discharge, varying from a thin watery fluid to a thick glairy secretion often tinged yellow. Menstruation is usually too free. Local treatment may be necessary. These remedies should be given in the intermenstrual period with the indicated remedies for pain.

Atropine is indicated for the spasm if the skin is pale, with chills or chilliness, flow scant, and dark and bad smelling. The pain comes on in atropine cases before the flow and continues until the flow is established. There is usually a sensation of weight for a day or two preceding the flow.

SCHEIDEL ELECTRO THERAPEUTIC APPARATUS

In our advertising pages will be found the announcement of the Scheidel-Western X-Ray Coil Co., Chicago Illinois. This is the pioneer firm in America manufacturing X-ray apparatus, and is at present one of the largest manufacturers of electro therapeutic appliances in the world.

Any doctor who is now using or contemplating adding electro therapeutic apparatus to his armamentarium will find it to his advantage to write to this firm for their literature, mentioning the appliance that he is particularly interested in.

The Germicidal Power of Wulfing's Formamint

Experiments Carried Out in the Physiological Laboratory of Dr. Piorkowski, Berlin

The interesting experiments depicted here must carry conviction to every open mind. They were made with a bacillus which is well-known to scientists as one endowed with exceptionally great powers of resistance. This hardiness makes the results all the more convincing. The illustrations are reproduced from actual photographs of the experiments, showing the growths obtained on sterilized potatoes which had been inoculated with the bacillus prodigiosus. This particular medium was selected for the reason that the bacillus prodigiosus produces on it a growth of rich blood-red color, and any variation in the growth is easily discernible.

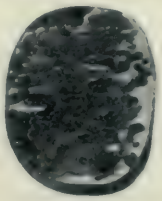
Fig. 1 shows the unsterilized potato with the natural abundant growth of this bacillus—deep blood-red velvety vegetation, familiar to all bacteriologists.

Fig. 2 shows a potato which had been treated with a small portion of human saliva in which *one* Formamint Tablet had been dissolved. The bacillus has failed to grow beyond the actual lines of inoculation made by drawing the infected platinum wire across the surface of the potato.

Fig. 3 shows a growth inoculated in precisely the same manner, but the development of the bacillus has here been checked by the previous application of a little human saliva taken after *two* Formamint Tablets had been sucked. The growth is restricted to a very small part of the potato and is broken up, showing the feeble development.

Fig. 4 shows that the growth of this resistant microbe has been absolutely prevented by the previous application of saliva taken after *three* Formamint Tablets had been sucked. Nothing except the scratch marks made by the platinum wire on the plate is visible. Not a bacillus out of the thousands inoculated has been able to survive the sterilizing effect of Formamint.

These illustrations show the growth of the Bacillus Prodigiosus inoculated on a potato, and its subsequent destruction by Formamint.



1. Without the use of Wulfing's Formamint. Germ growths very luxuriant.

2. Before inoculation this potato was treated with saliva in which *one* Formamint Tablet had been dissolved.

3. Further destruction of germ-growths owing to the use of two Formamint Tablets.

4. After disinfection with saliva in which *three* Formamint Tablets have been dissolved. Germ-growths totally destroyed.

Wulfing's Formamint alone has this powerful germicidal action. None of its various imitations possess this property; in fact, there is no evidence in medical literature to prove their reliability. The reason is that Wulfing's Formamint is the only throat tablet in which the germicide is locked up securely within it until the moment when it comes in contact with the saliva, so that it is liberated from the chemical combination in the nascent state, when its chemical energy is greatest.

Samples and literature sent, free, to the Medical Profession on application to Messrs. A. Wulfing & Co., 12 Chenies Street, London, W.C.

HEPATIC COLIC AND GASTRIC CATARRH SUCCESSFULLY TREATED BY LAVAGE OF THE STOMACH WITH HYDROZONE

DR. FRANCIS H. WEISMANN, of New York, reports in *The St. Louis Medical and Surgical Journal* a case of gastric catarrh treated successfully by lavage of the stomach with Hydrozone. He states.

"I commenced treatment on the 5th of April, 1904, with Hydrozone 100 grammes, warm water one quart; the stomach was washed every third day in April and every second day in May, when the Hydrozone was increased to 150 c.c. (about five fluid ounces), and was kept at that amount throughout the treatment; during the month of June the stomach was washed out every day, July every fourth day, August and September once a week.

"The improvement was noticeable already at the end of April, when the quantity of bile and mucus was much lessened. In September the benefits derived from this treatment proved conclusively that it had not been used in vain. Internal treatment was by means of Glycozone, two teaspoonfuls before and after each meal, and every three weeks a good dose of oleum ricini.

"Up to date the patient has not had another attack of hepatic colic since April, 1904, while he is now enjoying good health.

"The results that I have obtained in this particular case are so gratifying that I resort now exclusively to Hydrozone and Glycozone in the treatment of all cases of stomach diseases, and I believe that with the exception of stomach and intestinal disorders resulting from the presence of a malignant growth, all other cases can be successfully treated as above outlined."—*The Saint Louis Medical and Surgical Journal,* August, 1905.

IS IT SAFE TO GIVE PURGEN TO INVALIDS, ESPECIALLY THOSE SUFFERING FROM LIVER, KIDNEY OR HEART TROUBLE?

YES! Experience goes to show that Purgen is especially suitable in such cases. The irritant action of most of the vegetable purgatives upon the kidneys is well known. With a view to ascertaining its action, Purgen was given in two cases of albuminuria. The patients were given two "Adult Purgen" daily with the usual purgative result, but no increase in the albumen took place, nor was there any microscopical evidence of increased irritation. From this it may fairly be inferred that Purgen may be used as an aperient in renal disease. Purgen was also given in two cases of jaundice in children, in order to see if it still acted as a purgative, and further, whether it exerted any action upon the secretion of bile. In both cases purgation was produced by the ordinary dose of two "Infant Purgen," the resulting stools being of the usual clay color. From this we may assume the purgative action of Purgen is not dependent upon the presence of bile in the intestines, and also that it apparently has no influence upon the secretion of bile. In cases of morbus cordis, with dilated and degenerate heart, Purgen was also given, the depressant action common to all purgatives passing away as soon as ever the effect of the drug had ceased. Owing to its non-irritating character Purgen should be the purgative chosen in pregnancy and the puerperal state.

THREE VALUABLE QUALITIES
OF
BOVRIL

1. It possesses remarkable feeding power.
2. It enables the system to extract more nutriment from ordinary diet than without its use.
3. These two qualities give Bovril a body building power of from 10 to 20 times the amount of Bovril consumed.

See *"British Medical Journal,"* Sept. 16, 1911.

(*Ung. Iodi, "M.&J."*) **IODEX** (*For External Use*)

Contains 5 per cent. of IODINE (therapeutically free) in a neutral base. In pots, price 35 cents

Distinctive Characteristics { DOES NOT STAIN OR IRRITATE THE SKIN. IS ABSORBED WITH GREAT RAPIDITY. IS ENTIRELY FREE FROM SOLVENTS SUCH AS ALKALINE IODIDES, ALCOHOL OR GLYCERINE.

IODEX entirely solves all difficulties hitherto connected with external use of Iodine.

IODEX presents Free Iodine in its highest therapeutic activity.

IODEX is indicated in: RHEUMATISM, GOUT, ARTHRITIS, SYPHILIS, TUBERCULOUS and SWOLLEN JOINTS, ENLARGED GLANDS, RINGWORM, CHILBLAINS, and ALL INFLAMMATORY CONDITIONS

Samples and Literature Sent on Application.

MENLEY & JAMES Ltd., of Canada, 337 Craig St. West, Montreal

NATIONAL FLUID EXTRACTS

THESE products of the Central Laboratories of the National Drug & Chemical Co., which have been advertised for some months past in the columns of the CANADIAN JOURNAL OF MEDICINE AND SURGERY, appear to be making substantial headway with the profession. Mr. Moore, the chemist in charge of the Central Laboratories of the company, is a well-known figure in Canadian pharmaceutical circles, having for many years occupied the position of Examiner in Pharmacy to the Pharmaceutical Association of Quebec.

In view of the wide use of fluid extracts and the fact that only a few of them have official standing, the danger of making a dozen standards of strength and distributing the same among the dispensers of the country must be apparent to all. To secure uniformity all the fluid extracts made by the various houses embraced in the National Company were gathered in and destroyed, and new goods of standard strength put out. A few lines, especially National Fluid Extract of Ergot and National Fluid Extract of Nux Vomica, two very important products, appear to have come into general use, while the whole line, some 150 in all, represents a quality and style of package highly creditable to this enterprising company.

MESSRS INGRAM & BELL'S NEW WAREHOUSE

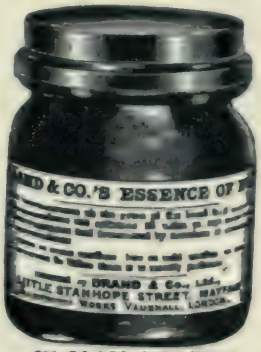
INGRAM & BELL, LIMITED, 420 Yonge St., Toronto, recently purchased a property on McCaul St., just below College, and are now engaged in building thereon a new warehouse. This warehouse will be one of the most up-to-date in Toronto, with showrooms second to none in Canada. Particular attention is being paid to the lighting and ventilation. The firm expect to move into their new quarters about December 1st. The location on McCaul Street is a particularly good one, being but a block from the University of Toronto. We congratulate the firm upon their purchase, and wish them heartily a largely increased business with the medical profession throughout the Dominion.

An Antiseptic Mattress.—The attention of the readers of this JOURNAL is called to the advertisement appearing on page xxiii of this issue of the Antiseptic Bedding Co., Toronto. The manufacturers of this mattress have put together something that is of special interest to physicians. This mattress is particularly suitable for use in hospitals, being manufactured of hair and felt. As physicians are well aware, the essential points of a good mattress for use by the sick are, that it shall be *soft* and yet firm, so that the body will lie flat and not sink into a hollow. It must also be *springy*, so that it will retain its softness, and it should be as nearly *antiseptic* as possible. The mattress as manufactured by The Antiseptic Mattress Co., Toronto, will be found to give the best of service, being exceedingly reasonable in price, consistent with quality.

BRAND'S

ESSENCE OF BEEF AND OF CHICKEN

For Exhaustion and Weak Digestion



The Best Restoratives After Loss of Blood From Any Cause

IN GLASS AND TINS

BRAND'S Essence contains no added condiments or stimulants. It is a pure meat essence in the form of a very delectable golden-coloured jelly, pleasant to take, and easy of assimilation by the most delicate digestion.
MEAT JUICE, and other Invalid Delicacies.

BRAND & CO., LIMITED, MAYFAIR, LONDON, ENGLAND
NEWTON A. HILL, 25 Front St. East, Toronto. H. HUBBARD, 27 Common St., Montreal

Knorr's Consomme -Cubes-

Each cube one cup.
"Ready in a minute."

2 cubes 5 cents.

If you like the

Consomme

try

KNORR'S

SOUP SQUARES
and
MIXED VEGETABLES

At your Grocers

HUMAN AND RAT LEPROSY

M. F. Engman (*Interstate Medical Journal*, November), in a review of the recent additions to our knowledge of leprosy calls attention to several significant discoveries which are likely to prove of much practical value in the treatment of this condition. Clegg's success in growing the bacillus leprae symbiotically with amoeba has been followed recently by the work of Duval. The latter has succeeded in growing in pure culture an acid-fast bacillus answering in all respects to the leprosy bacillus. Successful growth was obtained on banana saturated with solutions of tryptophan, cystein, and leucine, and incubated at a temperature of 30° C. Duval was able with these cultures to produce experimental lesions in mice and monkeys. The cultures, even under unfavorable conditions, remained virulent for months, which seemed to explain the fact that houses in which lepers have lived have apparently conveyed leprosy after great length of time. Stefansky in 1903 called attention to the fact that rats were affected with a communicable disease resembling human leprosy. The lesions present upon microscopical examination a bacillus with staining properties similar to those of bacillus leprae. The histological picture is likewise similar to that seen in human leprosy. The disease seems to occur in rats all over the world, and is easily conveyed from rat to rat in the laboratory. Much work has been done by Currie to determine whether insects are capable of transmitting the disease either from animal to man or from man to man. It is yet too early for positive conclusions, but Currie believes it distinctly possible that flies and mosquitoes may be carriers of the infection. He has found lepra bacilli in the intestines and feces of flies fed on leprous fluids, and believes that these insects should be regarded with much suspicion. In the treatment of the condition, Engman finds that little progress is reported. Although Rost and Williams, following the successful culture of the organism, have reported surprisingly good results with vaccine therapy, the treatment is still too new for dogmatic conclusions. Salvarsan has been tried without much change in the outward manifestations of the disease.

MASSAGE IN ALL ITS BRANCHES

Mrs. Neil. MacKinnon, who several months ago opened up a Massage Institution at No. 20 Walmer Road, has recently moved to 101 Kendall Ave. Mrs. MacKinnon has furnished her new house with every facility for the administration of baths of every description, massage in all its branches. Swedish movements, vibratory treatments, etc. No. 101 Kendall Ave. is an ideal building for an institution of this kind, being bright, cheery and attractive. Mrs. Neil MacKinnon is a Masseur of Scottish training, and understands her work in every detail. Her institution is conducted along scientific lines, and she invites physicians to call and see for themselves the facilities afforded for the treatment of patients. Only lady patients are taken. Mrs. MacKinnon's new institution will be ready for business on and after October 1st.

"Expels without discomfort to the patient the poisonous toxins that form in the alimentary canal and is of particular value in the treatment of febrile conditions."

Wyeth's

GRANULAR **Salinates** EFFERVESCENT

SUPPLIED IN SEALED BOTTLES
CONTAINING 1-4 LB. AND 1 LB.

PREPARED BY

JOHN WYETH & BROTHER
INCORPORATED

Manufacturing Pharmacists, PHILADELPHIA, PA.

IODOGLYCEROLE

E. S. Talbot, Chicago (*Journal A. M. A.*, August 3), recommends the use of iodine as the best oral antiseptic. The objection to the official preparation, which contains 7 per cent. iodine in alcohol, to which is added 5 per cent. potassium iodide, is due to the fact that in frequent applications it destroys the mucous membrane of the mouth. He gives the following formula for use, which he calls iodoglycerole:

Water	2 parts
Zinc iodide	3 parts
Iodine (crystals)	5 parts
Glycerine	10 parts

He says: "As compared with the ordinary tincture of iodine, its astringent properties are greatly increased; the glycerine causes rapid absorption and the irritating effects are reduced to a minimum. The penetrating effect is remarkable. The glycerine thickens the preparation and prevents it from mixing with the saliva and running over the mouth, as the ordinary tincture will do. This preparation may be used on the gums every day, if necessary, without injuring the parts. The teeth as well as the soft parts of the mouth should be treated in like manner since all germs are destroyed. I have been able to reduce decay of the teeth in my patients in the past ten years from 30 to 40 per cent. All patients receive this treatment before or after each sitting." He finds this especially useful in cases with bone disease, such as caries, necrosis, osteomyelitis, and all pus surfaces. In all operations on abscess cavities it should be used before as well as after operation. The same is true as regards tooth extraction, and splendid results are obtained with it in diseased or inflamed tonsils. Care should be taken that the druggist uses the pure zinc oxide in making up the formula.

The Kindel Davenport Bed.—Physicians who visited the Canadian National Exhibition probably noticed the unique exhibit of The Kindel Bed Co., Ltd., of Toronto. This firm manufacture The Kindel Davenport Bed, and have a capacity of nearly fifty complete beds a day. It is a combination piece of furniture, a handsome sofa fit for any parlor and a downy bed with mattress complete. It is made with either a steel or wood frame, the former having the detachable cushions, the latter upholstered in De Luxe style. It is always ready. Can be changed from perfect davenport to perfect bed without moving from the wall; can be readily taken apart for moving, and is easily set up again; is so simple that a child can operate it, and there are no complicated parts to get out of order. A bed can be no better than its springs, hence only the best tempered steel wire is used. The Kindel Davenport is protected by cushions automatically reversing, bringing mattress uppermost as bed. The mattresses and cushions are filled with Kindel's hygienic felt. The bedding is always in place, concealed from view during the day, but is ready for use at night. It costs no more than the antiquated Davenport, nor as much as the ordinary bed of equal grade, notwithstanding its unquestioned superiority. It is ideal for the sick room and hospital ward.

" that the ice bag is distinctly harmful in appendicitis and should never be used," is the logical deduction of Dr. A. M. Fauntleroy, Surgeon U.S. Navy, basing his opinion upon seventy cases operated.

Like morphine, ice not only obscures the true condition, but decreases Hyperemia, Leucocytosis and encourages stasis in the part to which it is applied. What seems evident in applying ice in inflammation of the appendix must hold true in inflammatory processes where elsewhere manifested.

That hot moist heat is the logical therapeutic agent in treating inflammation must be apparent, as it increases Hyperemia, Leucocytosis and reduces stasis in the part to which it is applied.

The convincing evidence of the convenience, serviceability and above all the reliability of antiphlogistine as a

thermic agent in the treatment of inflammation is best appreciable by its application thick and hot to the affected part.

DIAGNOSIS OF HEPATIC CONDITIONS

I. C. Chase, Fort Worth, Tex. (*Journal A. M. A.*, August 3), describes the urobilinogen and the galactose tests of liver function as used in the Neusser clinic in Vienna. He also reviews the physiologic facts known of urobilinogen, which is due to transformation of bile in the intestine, largely by the action of bacteria, and which can appear in the urine only with disturbed action of the liver-cells. The first known test, also known as Ehrlich's aldehyde test, is described as follows: "A stock solution is made with para-dimethyl-amino-benzaldehyde, 4 gm., or 2 per cent.; hydrochloric acid, 40 gm., or 20 per cent.; water and a few drops of alcohol, to 200 c.c. One or two drops of this solution are added to 5 c.c. of fresh urine. In the presence of urobilinogen there develops, usually in the first few minutes, a rose-red color. Exceptionally, the extreme depth of color is not reached until one-half to two hours have elapsed. The reaction is somewhat more common in dark than in light colored urines. In a dark, bile-laden urine bile pigments obscure the test. The urine with the reagent is then shaken with a few drops of chloroform, when the red color appears in the chloroform at the bottom of the test-tube." The galactose test is given as follows: Forty gm. of milk sugar are given in tea in the morning after free purgation. In cases where the liver-cells are diseased, instead of a trace or a small amount of sugar in the urine, from four to ten gm., of galactose are eliminated by the kidneys and can be detected by Fehling's and Haines' tests; the amount is large from three to six hours and continues from ten to fourteen hours. He concludes with the following summary: "The urobilinogen test is a very delicate test for impaired liver function. Any localized diseased cells will let pathologic amounts of urobilinogen pass to the urine. The galactose test, on the contrary, is a general functional test. Galactose is not passed in localized hepatic diseases when the remaining part of the liver has good compensatory function. In the various forms of cirrhosis the galactose test is uniformly positive, strongest in alcoholic cirrhosis. In septic conditions or advanced stages of infectious diseases a positive galactose test results from liver degeneration. In cases of phosphorus poisoning, chloroform and mineral poisons, liver degeneration is not shown by the galactose test until some days after administration of the poison; in phosphorus poisoning, sometimes not until the second or third week. The great value of these tests for differential diagnosis lies in the conclusions which can be drawn from their combined use."

"ACADEMY OF MEDICINE" MILK

It is worthy of note that the proprietors of Price's Dairy, Toronto, were the first firm of milk dealers to receive permission to use the seal of The Academy of Medicine, Toronto. This means that the milk of this concern, as supplied to the Toronto public, was found to be fully up to the standard as laid down by the Academy of Medicine Milk Commission. This is certainly an endorsement of no mean order, and should satisfy the medical profession that milk as bottled by Erindale Farm (Price & Sons) is clean, rich, and free from the semblance of adulteration.

The "National" Standard for Fluid] Extracts is the Physician's Ideal.

The Best Analytical Report is the Physician's Opinion.

Our Chemists in charge of the preparation of

National Fluid Extracts

appreciate the desire of every honest physician, viz., to secure the expected result from the use of remedies prescribed. Being absolutely certain of the standard of quality of "National" Fluid Extracts of three years ago, and having the good opinion of physicians all over Canada with unfailing regularity ever since, feel the great responsibility of maintaining the standard by being absolutely certain that every lot going out can be prescribed again by the physician with confidence in the result.

Every day brings us new evidence of the great success of "National" Fluid Extracts in the field of medicine.

National Fluid Extract of Ergot

has done much to establish confidence in the minds of the physicians in the whole line. There never has been disappointment in the use of "National" Fluid Extract of Ergot. Never having been disappointed in the past, the physician has no doubts of the future. He should therefore always specify National Fluid Extracts.

National Drug and Chemical Co. of Canada, Limited

CONSTIPATION AND HEADACHE IN WOMEN

C. A. L. Reed, Cincinnati (*Journal A. M. A.*, August 3), discredits the common view that the constipation and headaches frequently complained of by women with gynecologic derangements are due to the latter, and holds that the chief cause is to be sought in displacements or ptoses of the abdominal and pelvic organs. He has had in his practice so many cases where these symptoms persisted after all gynecologic indications have been met that he feels that the work of Glenard fairly supplies the missing link in the etiologic evidence. The reflex and pressure theories will, he thinks, have to be largely abandoned. The usual displacement is a general descent of the bowels by which the cecum finds its way low into the pelvis, lowering of the transverse colon and hepatic flexure with obstructive angulation there and at the splenic flexure. Reed does not say that these displacements are always accompanied by the uncomfortable symptoms; in some cases they may exist with a fair degree of health, but the frequency with which their diagnostic importance has been confirmed by surgical explorations by himself and others and the uniformity with which they have been relieved by correction of the displacements has convinced him that such ptoses are frequent causes of pelvis mischief and general disturbance of health in women. The practical application of these views in operations for uterine procidentia and in the use of pessaries is also noticed.

WHY THE UNDERWOOD TYPEWRITER SHOULD BE IN EVERY DOCTOR'S OFFICE

Because it meets every typewriter requirement, has a wider range of usefulness, does faster work, and gives *better and larger service* than any other typewriter made. Speed, simplicity, convenience, durability, these are distinctive of The Underwood, and The Underwood alone. Ask any one of the thousands of physicians who have used this machine, and he will tell you, without exception, to buy no other. Call and find out that the above statements are but fact. The Head Office is at Nos. 7 and 9 Adelaide Street East, Toronto.

In Nervous Diseases.—In the weakness and lassitude incident to many nervous and mental diseases, Horlick's Malted Milk makes an excellent reconstructive. It has no tendency to constipate or produce a bilious condition like ordinary milk, but is easily digested and assimilated, satisfying every nutritive need of the system. It contains a due proportion of muscle, bone, nerve and brain-building food elements, derived from the best natural sources, and so prepared as to be readily utilized by the system in a physiological manner. It lends itself, also, admirably to the idea of forced feeding in neurasthenia and other nervous diseases, because a glass of it may be taken at short intervals throughout the day without causing any distress or discomfort. When sipped hot upon retiring its soothing effects are appreciated by nervous invalids, as it helps to bring about refreshing sleep.

Therapeutic Advances

Interesting to Doctors

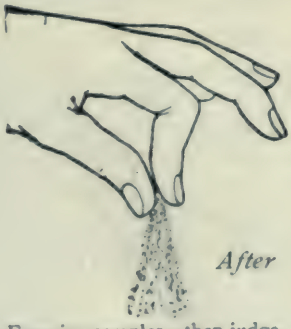
Powders in Pill Form

A British Pharmaceutical Triumph.

Pulverette

Trade Mark (Patent)

May be crushed to powder between finger and thumb.



Examine samples—then judge.

Supersede pills or tablets. No liquid excipients used. Simply powder enclosed in a frail sugar shell.

Unrivalled for Private Recipes

Made round, avoid a flat tablet shape with any colour coating. (Send for list.)

Metallic Ferments

The New Therapy

Collosols

Argentum or Hydrargyrum (1 in 2000)

Kill pathogenic micro-organisms in a few minutes yet are harmless to human beings.

"No microbe is known that is not killed in laboratory experiments within six minutes.'
British Medical Journal, March 2nd, 1912.

Used successfully in Gonorrhoea, Gonorrhoeal Conjunctivitis, Syphilis, Tonsillitis, Eczema, Rigg's Disease, etc.
'Lancet,' Feb. 3rd, 1912.

Given hypodermically, intravenously, by the mouth or applied topically.

NOTE — Collosols are non-irritant, non-toxic and are not precipitated by the blood when injected.

(In 4 oz. bottles only.)

ENQUIRIES INVITED
Manufactured in the Laboratories of

OPPENHEIMER, SON & CO., LIMITED
LONDON, ENGLAND
Sole Agent for Canada
MERVYN E. VAN ZANT, 732 Yonge St. ·.· Toronto, Ont.

MOVABLE KIDNEY

K. A. J. Mackenzie, Portland, Ore. (*Journal A. M. A.*, August 3), takes up the relation of the kidney as a causal factor of intestinal ptosis. He believes that it is the organ primarily displaced in more cases than is generally recognized. The reasons for this he finds in an early and minor state of hydronephrosis due to retention of urine, which increases the weight of the kidney, which is still further increased by the effects of pressure on the intrinsic blood-supply and secretory apparatus. Then we have the progressive drag of the displaced kidney on its own blood-supply, all these developing what may be termed the "gravid kidney." The right kidney is especially affected. It would be impossible, he says, to take into account all the vascular disorders brought about in the abdominal organs, but he particularly dwells on the drag on the intestines by the gradually increased ptosis of the kidney. There are authors, however, who claim that intestinal stasis can be produced by this cause, but this Mackenzie thinks cannot and will not ordinarily occur, even in advanced splanchnoptosis, if the lumen of the intestine is not obstructed. He does not believe, however, that minor degrees of angulation are capable of causing intestinal stasis, which he is inclined to attribute to the vascular congestion accompanying the splanchnoptosis. He criticizes some of the operations performed for the relief of the condition, such as those for gastroptosis and operations designed for the relief of intestinal stasis, associated or not, with splanchnoptosis having a definite symptom-complex but without manifest obstructing or stenosing lesion, whereby extensive areas are excluded from function either by resection or anastomotic procedure. Resection of the colon will always have a place in surgery and to a limited degree, perhaps, in relation to these disorders, notably the giant colon, but it does not strike at the causes of intestinal stasis and it is too radical and dangerous to be employed under ordinary circumstances. Noticing the various opinions as to the other, he says: "The general observation of a very considerable number of acquired cases would seem to warrant the conclusion that in this morbid state ptosis of the organs, singly or severally, is the primary state, which leads progressively, because of perverted anatomic states of the viscera due largely to vascular stasis, to disturbed function of all the organs involved, so that circulation, digestion, assimilation, nutrition, metabolism, blood-formation, innervation, secretion and excretion, etc., become more or less, in the order stated, involved and reduced to states of confusion and perversion which mark time to the progress of the disorder, always faithfully reflecting it."

A Healthy Smoke.—Messrs. S. Davis & Sons, the well-known cigar manufacturers, of Montreal, not long ago put upon the market a brand of cigars known as "Noblemen." This brand should undoubtedly interest medical men, for the reason that it is in every respect an honest smoke. It is manufactured from the finest imported tobacco, and has a clear Havana filler. There is no class of men who know better than doctors that a large number of cigars at present on the market are, to say the least of it, unhealthy, being made from cheap grades of tobacco that are most inimical to health. "Noblemen" cigars will, however, be found to make a most enjoyable smoke, have a delightful flavor, their use not being followed by the usual headache and furred tongue so often the case with other brands of tobacco.

Drugs & Chemicals.

MAY AND BAKER, LTD., manufacturers of pharmaceutical chemicals since 1834—offer at strictly competitive prices every description of pharmaceutical product—carefully standardised and complying with the Pharmacopœia and other recognised requirements.

May & Baker's products are purchased regularly by the India Office, the Crown Agents for the Colonies, The War Office, the Admiralty and a large number of foreign Governments as well as by many Hospitals and Institutions both at home and abroad.

The medical profession is invited to ask for May & Baker's chemicals in original packages—obtainable from all the leading wholesale houses in Canada.

MAY AND BAKER, LTD.,
BATTERSEA, LONDON, ENGLAND

The Largest, Best Equipped and Most Sanitary Plant of its kind in the world

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Horlick's Malted Milk

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Samples sent on request

GILMOUR BROS. & CO.
25 St. Peter St., Montreal

INFECTION OF ROUND TEETH ROOTS

M. L. Rhein, New York (*Journal A. M. A.*, August 3), speaks of the liability to infection of the roots of teeth the space around which is frequently called the apical space on account of the formation of abscesses destroying the bony tissue. The majority of these are alveolar abscesses, due to death of tooth pulps. There are also pericemental abscesses with living pulps which have not been infected. The course of the ordinary alveolar abscess is generally marked by a crisis, at which time the pus escapes into the mouth, either through the plate of the alveolus or between the periosteum and the root at the gingival border. Unless radically cured a permanent fistula follows with more or less constant escape of pus into the mouth. There is, however, another form, called blind abscess, with fibrous encystment of the abscessed area. The only symptom is an occasional tenderness over the region of the diseased area, and too often even this symptom is lacking. This is much more dangerous to the individual, as it is not suspected and the toxins given out may be causing pathologic changes in various parts of the body. In the last few years the radiograph has shown how few mouths are free from blind abscesses. Gilmer of Chicago estimates that 25 per cent. of people have infected areas around the ends of the roots of the teeth. Rhein enumerates a large number of pathologic conditions from acne up to insanity that may be thus caused. He urges that the American Medical Association use its power in bringing about an introduction of a course of dermatologic instruction in the medical curriculum. If 25 per cent. of the people are suffering this way, it is a matter needing attention. He thinks that the dentists too often fail to properly remove the pulp material and leave portions of necrotic tissue buried in the alveola to become the foci for future infection. The patient's physician not only interposes no obection, but likewise submits his own mouth to the same unsurgical procedure. This, Rhein says, is no new statement of facts, but it seems that simple words are unavailing in arousing the profession to this continued unnecessary source of evil.

X-RAY IN GYNECOLOGIC THERAPY

E. H. Skinner (*Interstate Medical Journal*, November), reviews the recent rather extensive literature on the X-ray in gynecologic therapy, especially in the treatment of uterine myoma. The treatment in such cases is based upon the fact that the X-ray can produce ovarian atrophy and the artificial menopause incident thereto. Albers-Schoenberg states that we may expect certain definite changes, as follows:—(1) Cessation of menstruation, producing a reduction in the myoma mass and the disappearance of the menstrual or intermenstrual bleeding accompanying myomas, together with relief from pain; (2) the relief of post-climacteric bleeding; (3) the lessening or cure of conditions in the post-climacteric period depending upon myomas without bleeding. It seems that the menstrual flow following the first exposure may be quite profuse, and this treatment is therefore not advisable in very anemic women with less than 40 per cent. hemoglobin. A very important matter is the proper technique and dosage of the ray to be employed, and Skinner reviews in detail the methods employed by Pfahler, Albers-Schoenberg, and Bordier to guide them in the proper therapy.

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The Canadian Journal of Medicine and Surgery

A Journal published monthly in the interests of Medicine and Surgery

Vol. XXXII TORONTO, NOVEMBER, 1912 No. 5

Editorials

MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

The fortieth annual meeting of the American Public Health Association, which was held at Washington, D.C., September 18-20, 1912, was not largely attended. Probably more members would have registered had it not been for the attractions of the International Congress of Hygiene and Demography, which was advertised to meet at Washington during the following week. Besides, the customary entertainments were omitted. However, members of the Association and their ladies were invited to the various entertainments arranged for the Congress of Hygiene.

In looking over the programme of papers and addresses announced by the American Public Health Association, we were pleased to notice the names of several compatriots. In reply to addresses of welcome, Dr. F. Montizambert, Director-General of Pub-

lic Health, Canada, responded for the Dominion of Canada. Dr. P. H. Bryce, Superintendent of Immigration, Ottawa, read a paper entitled, "The Physics of Refrigeration As Applied to the Conservation of Food Products." At the General Session of September 20th, a paper on "Rural Typhoid in Manitoba," was read by Dr. R. M. Simpson, Chairman Board of Health, Winnipeg. A paper, entitled "A Comparison of the Methods of Water Purification from the Sanitary Standpoint," was read by Dr. John A. Amyot, Provincial Board of Health of Ontario, Toronto. A paper, entitled "Public Health, Past, Present and Future," was read by Dr. Hill, Institute of Public Health, London, Ont., in the Municipal Health Officers' Section. In the same section "A Report of the Committee on Foods, Including Milk and Water," was read by Dr. C. J. C. O. Hastings, M.O.H., Toronto. An address on recent public health legislation in Ontario was made by Dr. John W. S. McCullough, Chief Health Officer of Ontario. The address was favorably received, many congratulations being extended to the speaker on the advanced state of hygiene in this Province.

The officers of the American Public Health Association for the ensuing year are: President, Dr. Rudolph Hering, New York; First Vice-President, Dr. W. R. Batts, Harrisburg, Pa.; Second Vice-President, Dr. James Roberts, Hamilton, Ont.; Third Vice-President, Dr. J. F. Monjaras, Mexico; Secretary, Selskar M. Gunn, Boston, Mass.; Treasurer, Dr. Livingston Farrand, New York City; Executive

Committee (two years), Dr. Y. Porter, Florida; Dr. J. F. Anderson, Washington; Dr. W. G. MacKay.

J. J. C.

OPEN-AIR SCHOOLS IN TORONTO

The question of open-air schools in Toronto is to be considered by the city Board of Education, a committee having been appointed to look into this question and report. Dr. Struthers, Chief Medical Inspector of the city schools, is reported in the Toronto newspapers as being favorable to this scheme, his good opinion being based, perhaps, on the successful work done last summer at the Forest Open-Air School, Victoria Park. There, in addition to the work of instruction, three small meals were supplied and, after lunch, the children had a siesta. The establishment of that school here was a new departure; but the propriety of inaugurating such a school had already engaged the attention of Toronto educators. For instance, Dr. J. L. Hughes, Chief Inspector of the Schools of Toronto, some three years ago, dealt with it in an article published in *The Courier.*

Speaking generally, one might say that instruction carried on in the open air has some advantages for scholars and teachers, provided that the weather conditions are favorable, and that the immediate environs of the school are pleasing to the eye and not exposed to disagreeable noises. From the standpoint of improved health, such schools would be useful in providing means for the instruction of sickly, convalescent, or pretubercular children. If undertaken

at all, shelter tents or huttings would be required, even in fine weather, to serve as a protection against wind or rain.

As arrangements had been made to carry on instruction in the open-air school at Victoria Park during July and August of this year, a total period of about five months was devoted to the work of instruction, so that, in addition to teaching, the authorities of that school were enabled to make an effort to improve the health of some sixty or seventy delicate or sickly children. Dr. Struthers' report to the Toronto Board of Education showed that this effort to improve the health of sickly children had been successful, in several instances.

From the experience gained in the management of open-air schools, at Rome, Italy, one might indulge a hope that it would be possible, some day, to extend some of the hygienic advantages of open-air schools to the general run of scholars in the public schools of Toronto; but we fear that this hope will have to be regarded as at best a pious wish, rather than a realizable scheme. As everyone knows, open-air schools could not be carried on at Toronto, even with the aid of shelters, for any kind of scholars, during seven months of the year. The Toronto Board of Education should, therefore, look to the efficient ventilation of their schools during these seven months of cold weather; in May and June, the windows of school rooms can be opened to advantage.

We think, therefore, that for the benefit of sickly, convalescent, or pretubercular school children, the

Toronto Board of Education should establish open-air schools; that the feeding of children attending such schools is essential to success; that the schools should be continued during the five months of fine weather; that tents or huttings should be erected in the park, or wooded spot, selected as the location of the open-air school. J. J. C.

COUNTRY HOMES FOR THE WORKING PEOPLE OF TORONTO

The working people of Toronto—artisans, clerks, factory hands, laborers—must keep in touch with their work, but their homes should be made in the country. If they were to live in the country, and were housed in sanitary cottages, provided with a bit of garden land, they would be able to obtain the height of health and efficiency and do their best work. If a workingman pass his nights on a clean bed, in a room so situated that he can breathe pure air, while he is free from the jar of tram-cars, the glare and noises of the city, his tissues, bruised by labor, are restored to health and he will be able to tackle his next day's work with energy. In the country, he is removed from the barroom and other debasing sources of temptation, which are ever present in the city.

Needless to say his wife and children will enjoy more comfort and be exposed to less risks to life in a country cottage than in the snuggest city apartment their bread-winner's wages would permit him to rent.

The advantages are so apparent, that one would expect to see a good many artisans abandoning the city for the country. Before the hegira is begun, however, two prerequisites require settlement: cheap building lots and cheap and rapid transportation.

As far as the vicinity of Toronto is concerned, building land along the Lake Shore Road, Kingston Road, Dundas Street, Yonge Street, is rising in price. Many old farms, situated on these roads, have been recently sold at good prices and farms in the same neighborhoods will probably soon be disposed of to speculators, who will sub-divide them into lots and resell them for building purposes. One difficulty for the artisan in purchasing a lot is, that the land speculator, in order to prevent the erection of unsightly dwellings on his property, may insist that purchasers of lots shall put up cottages of a high quality. So long as this proviso is not carried beyond the artisan's ability, it is quite laudable. However, a poor artisan, desirous of living in the country, need not wait until he can build a cottage; his lot once purchased, a floored tent will house his family in the summer time at least.

To procure a home in the country near Toronto, the artisan may buy a lot in Mimico, an incorporated village of West York County, where building lots are sold at cheap rates. At various country properties, situated on the Lake Shore Road, which are offered for sale, fifty-foot lots are now selling for twelve dollars a foot. The terms are ten dollars down, the balance ten dollars monthly. At Windermere and Swan-

sea, villages adjoining Toronto, building lots can be purchased for about eighteen dollars a foot. These facts, and many others, which could be added if necessary, show the practicalness of the means by which the Toronto artisan can extricate himself from the bondage of city life and place himself and his family in healthful surroundings in the country. To judge by the appearances of a good many passengers one sees from day to day on the tram-cars which run between Sunnyside and Long Branch, along the Lake Shore Road, a good many artisans have already done so; their little homes dotting the villages along the route and the properties near by.

If willing to save money and invest it in the purchase of a home in the country, an industrious couple of the working class can buy a lot in a suitable locality, on the instalment plan, and put up an inexpensive cottage. As is the case in many matters of family life, the accomplishment of such a design rests largely with the wife; if she is of the right kind, the matter will be happily solved; if she is not, the husband and family may rot in the slums.

Along the Lake Shore Road, there is an excellent tram-car service from Sunnyside to Port Credit, the cars running regularly from 6 a.m. to 12 p.m., the time schedule being well observed. From Sunnyside to Long Branch Park the trip is made in about thirty minutes, at a cost of five cents. A person living near the route can easily reach the scene of his work in Toronto at from 7.30 a.m. to 8 a.m. every working day, winter and summer. We understand that lots can

also be bought, at low rates, on Yonge Street, Dundas Street and Kingston Road; and that railway transportation along these routes is rapid and costs little.

In the matter of building cottages for artisans, in the country near Toronto, it seems to us that private initiative, which is more in keeping with democratic ideals, is preferable to the investment of funds by companies. Besides, unless in exceptional cases, capitalists are not likely to invest their money in buying land in the country and putting up cottages thereon, when the erection of apartment houses in the city or other financial schemes yield large profits. For the purpose of helping to improve the health and strength of the working classes of Toronto, social reformers and physicians, who are interested in hygiene, would do well to urge them to make their homes in the country, near the city. J. J. C.

NOISE IN CITIES

It is sometimes salutary to see ourselves as others see us. Nations and cities, like individuals, are too apt to become puffed up by complacency and impatient of criticism. This is especially so in comparatively new countries as Canada and the United States. When staying in Toronto a few weeks ago Sir George Reid, the Australian High Commissioner in England, delivered himself of some remarks with regard to Toronto which should be noted and taken to heart by its citizens. Of course he praised Toronto

for its natural beauty, its progressiveness and so forth, but also he found certain things to criticize. It may be said that the former Premier of Australia stayed in the Queen's Hotel, and he was greatly astonished and annoyed by the continual noise going on in front of that very excellent hostelry. The discordant clanging of the bells on the engines of the trains which run to and fro along the waterfront disturbed his slumbers, and the racket made by the cars irritated his nerves. In fact, he expressed the opinion that the Toronto street cars were the noisiest he had encountered in his long experience. The waterfront of Toronto is something of a disgrace to the city from the esthetic and noise point of view. The question of noise in cities is being taken up in most of the large cities of the world. In New York there is a society for the suppression of unnecessary noise, and through the efforts of the Society zones of silence have been established in the neighborhood of hospitals. It is obvious that noise is hurtful to the sick, and it is reasonable to suppose that to some extent it is hurtful to the healthy. Much of the noise in cities is unnecessary, a good deal of the noise for example made by the Toronto street cars is unnecessary. Why does not a philanthropic person initiate a Society for the suppression of unnecessary noise in Toronto. There is plenty of scope for such a society. It is fortunate that the recent strictures on Toronto were not passed by a superior Britisher but by a fellow Colonial. W. A. Y.

DIET AND DISEASE

Of course there is an intimate relation between diet and disease. The old saying that many persons dig their graves with their teeth is, in the main, true. But there is another old saying which is equally true, that what is one man's meat is another man's poison. That is to say that into the question of diet the personal equation enters largely. Therefore, it is difficult to lay down a hard and fast rule with regard to what to eat and how much to eat. A man engaged in hard manual labor can eat, digest and assimilate an amount and quality of food which would almost kill a sedentary person. Vegetarian diet may be good for some persons, but that is no reason why it should be good for all. The truth is that when an individual has reached a certain age he should himself be the best judge of how much to eat and what to eat. If he has not learned from experience this lesson, he deserves to suffer. The diet of children though should be carefully supervised for, as the twig is bent so it will grow, is true of eating as of other things. Dr. H. B. Anderson, speaking at the recent meeting of the Canadian Public Health Association, wisely said that excessive eating and drinking is far too common, and he might have added are chiefly responsible for the marked increase of Bright's disease. Eating too much candy and too much ice cream, both essentially Canadian and American failings, are not conducive to good digestion, although they are not so harmful or reprehensible as tippling in taverns, a custom more

in vogue in Europe. The best advice to be given as regards eating and drinking is moderation. The man or woman who overeats or drinks too much is certain to suffer for it in the long run, both mentally and physically. Be moderate in all things that "thy days may be long in the land." W. A. Y.

INDUSTRIALISM A MENACE TO THE PUBLIC HEALTH

Perhaps the keynote of the meeting of the Canadian Public Health Association in Toronto has been the general recognition by the speakers thereat that the trend of the population of Canada to the towns is likely, if not checked, to result in conditions of overcrowding, crime, vice and degeneracy which mark the large cities of Europe and especially the cities of Great Britain. Dr. Chas. Hodgetts, of Ottawa, in the presidential address declared flatly that, social and physical evils consequent upon the massing of people together in the towns were to be found in the most recently settled portions of Canada and were in evidence in the rising generation of Toronto. Dr. P. H. Bryce, of Ottawa, considered the whole subject at some length in an extremely able paper he read at the same meeting and brought forward most striking figures in support of the argument that people in Canada are flocking to the towns to a greater extent than almost anywhere in the world. There has been an increase in urban population, rapid even beyond the palmiest days of the United States immigration.

For instance, in Ontario the rural population has decreased considerably during the past few years. The speakers in the Section of Social Workers at the meeting all dwelt upon the same point. There is no doubt that in Montreal and in Toronto most of the evils that are present and afflict cities of an older civilization are to be found. Dr. Chas. Hastings is continually laying stress on the fact that overcrowding and slums exist in Toronto. Industrialism then may be carried too far. After all good health is worth more than money, and so long as industrialism reigns and living under unsanitary conditions is largely practised, the ills that follow in their train will flourish. Canada should put her house in order while there is yet time. W. A. Y.

A DISTINGUISHED GUEST

Mr. Irving Cameron has been entertaining his clansman, Sir Hector Clare Cameron, F.R.C.S.E., of Glasgow, Scotland. It is seldom that the medical profession of Toronto (in their own city) have the pleasure of meeting one so distinguished, yet so simple and genial, so bright and full of the life of to-day, yet so ready to turn back life's pages and share the yesterdays, rich in remembrances of old friendships with world-famed torch bearers of the science of medicine, and to describe the old paths by which medical men used to lead their patients to recovery or repose.

As the grand old man stood before the students in

medicine at Varsity on October the fourth, adorning his years by the strength of his physical, as well as intellectual bearing, he presented the study of a "house built upon a rock," and that rock built of good old Scotch granite! The words made flesh of one still happy in doing the hard day's work, age "is simply an arithmetic of the years." W. A. Y.

THE INTERNATIONAL CONGRESS ON HYGIENE AND DERMOGRAPHY AT WASHINGTON

The International Congress on Hygiene and Dermography, held at Washington the week beginning September 23rd, was characterized by some distinctive features—its size was one feature, delegates from every corner of the civilized world flocking to it—and the very large number of subjects dealt with was another feature—but before considering the Congress as a whole, it may be well to offer a few criticisms. While the arrangements, generally speaking, were good, and the politeness and willingness of all the officials and workers in connection with the meeting were unexceptional, the programme was so lengthy as to be in some respects almost tiresome. There was in fact a plethora of papers, a veritable embarrassment of riches—fewer papers, allowing time for adequate discussion would have been more satisfactory by far. Although a book containing abstracts of the papers

printed in different languages was published, and what is more to the point was distributed before the opening session, owing to the inordinate length of the programme, this very excellent and well conceived plan was to a great extent labor in vain. The idea doubtless was to provide the abstracts, in order that those wishing to discuss papers might be enabled to grasp the gist of the argument beforehand and thus be well prepared to criticize. As there was no discussion, which is really the salt of a meeting, the value of the abstracts were more or less obviated. Of course, as is the case with all such meetings, the Congress in question was somewhat unwieldly. The buildings in which the different sections were held were too far apart. It is true that two of the principal buildings used for the purpose were close together, but the other building was some distance away and there was also a certain amount of confusion with regard to the meeting of sections. After all, however, these were comparatively slight blots on the success of the Congress. Another drawback for which no one was responsible was the extremely inclement weather that prevailed throughout the week. It rained almost continuously from the beginning to the end of the meeting. A phase of the Congress which delighted all and which manifestly conduced to the bright outcome of the Congress was the active part that President Taft took in the proceedings. He opened the meeting and moreover made a remarkably able and telling speech, the main part of which was that he advocated or rather threw

out the suggestion that a national department of health should be appointed, and further that the splendid U. S. Public Health and Marine Hospital service should be used as the foundation upon which such an edifice might be reared. An amplification of the service that is to say would supply an adequate and efficient Federal Department of Health. Mr. Taft likewise did all in his power to render the Congress a success from the social point of view, inaugurating the social aspect by a reception at the White House to the delegates and their wives and daughters on the afternoon of the opening day. Of the foreign delegations that of Germany was the most numerous by far, most of the great leaders of the public health movement in that country being present. Great Britain was fairly well represented, more so in quality than quantity. All the European nations sent representatives. After Germany, France sent the delegation most distinguished by numbers and eminence. Canada was officially represented by Dr. Frederick Montizambert, Dr. Nadeau and Major Lorne Drum, and Dr. Chas. Hastings, Dr. G. D. Porter and Dr. Helen MacMurchy, of Toronto, were also present, the latter reading a really instructive paper in the section devoted to child hygiene. Dr. Peter H. Bryce read a paper on the problem of immigration from a hygienic standpoint, a subject on which he is as well qualified to speak authoritatively as is any man living. South America was particularly well represented.

Perhaps the most important matters dealt with

were diseases of occupation and child hygiene. Industrial diseases were made the subject of some papers of far-reaching importance. Sir Thomas Oliver, of Newcastle, England, gave an address on the evening of Sept. 23rd, on dust and fume in which he discussed at length the causes of explosion in coal mines and stated that mine explosions might be reduced by the use of a new chemical which absorbed coal dust. At the symposium on poliomyelitis Professor Alfred Petterson, of Stockholm, Sweden, announced the discovery of the virus of the disease in the nasal discharges of persons who had been exposed to it through association with its victims, and at the same symposium Dr. N. J. Rosenau announced his discovery that poliomyelitis was conveyed by the ordinary stable fly. Dr. Petterson's discovery may be taken as a vindication of the theory of Dr. Simon Flexner of the Rockefeller Institute for Medical Research, New York City, that the disease is communicable from person to person, through the upper respiratory tracts and that the bacteria from an infected person may be conveyed by the medium of dust and wind. The above is merely a brief review of the Congress and a few of its more notable features. It remains to be said that all the delegates who attended will carry away with them a lively sense of the hospitality shown by President Taft, the United States Government and by the City of Washington.

W. A. Y.

DO PHYSICIANS THRIVE IN THE CANADIAN WEST?

The Canadian West is not a gold mine for physicians. Far from it. A Toronto physician, of sound judgment, whom we met just after his return from attendance at the meeting of the Canadian Medical Association at Edmonton, remarked, in reply to a question about the prospects of physicians in Saskatchewan or Alberta, "A good many of them would like to get back." This refers chiefly to physicians who had left Ontario for the West. Western Canada offers a great vacant domain, ready for the plow, to land-hungry people, but the physicians who minister to the scattered settlers in that domain must be willing to take, as a not inconsiderable part of their fees, the consciousness of good work well done. J. J. C.

"UNDER TWO FLAGS."

Toronto was favored on October third by an all too brief visit from about two hundred and fifty of the delegates from Germany to the International Congress of Hygiene and Dermography, held previously in Washington, D.C. From the universities of the Fatherland and from active practice of their profession came these distinguished guests, the list bearing many names of world-wide reputation.

Upon arriving in Toronto they were met by Alderman Maguire, Chairman of the Civic Reception Committee, and representatives from the University and the Academy of Medicine, and were driven up to the Convocation Hall to receive the greetings of President Falconer and Dr. Reeve, which were responded to in German. Mr. Moure, the Bursar and Organist of Varsity, played on the new organ, and over the teacups in the large foyer the smiling guests discovered how well they spoke English and their Toronto hosts how surprisingly well they understood German. A short drive around the main streets with McConkey's as the stopping place where the Mayor and City Council entertained at dinner. Cordial and fittingly chosen, as always, were Mayor Geary's words of felicitation, equally happy and comprehensive were Mr. Heintzman's remarks in German. Seldom have guests responded so brightly and seemed so much at home, but a word and a smile and an interested question about Toronto were ever ready, and as toast after toast was pledged and honored and sung to, the moments flew pleasantly away, hosts and guests were made friends and "good-nights" were mingled with regrets and a wish for a longer visit in Toronto. A German physician voiced the wish for "something written in a book" to take home about the city and its history, saying that in "The States" they got plenty about every place they visited. Oh! for a Mrs. Wiggs to have sent a bottle, water from Niagara Falls wouldn't have compared in "curiousness" with that of Toronto for a souvenir.

Many of the Canadian students have found their Mecca and alas! others their Waterloo in the great German universities, but the Wisemen from that land of wisdom off for a holiday are delightful, and lose nothing in esteem if the halo of a wonderful reputation is rested awhile and just the community of common human interest allowed to hold sway.

W. A. Y.

Canadian Journal of Medicine and Surgery

Editor:
J. J. Cassidy, M.D.
45 Bloor St. E., Toronto

Managing Editor:
W. A. Young, M.D., L.R.C.P., Lond.
145 College St., Toronto

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Nose, Throat and Ear:
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Dermatology:
D. King Smith, M.B., Tor., Toronto; Demonstrator in Pathology, Toronto General Hospital.

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Original Contributions

OPENING ADDRESS AT THE FACULTY OF MEDICINE UNIVERSITY OF TORONTO, 4th OF OCTOBER, 1912

BY SIR HECTOR C. CAMERON,
Emeritus Professor of Clinical Surgery, University of Glasgow, Scotland.

I esteem it a very high honour to have been invited to address you to-day at this opening of the session of your Medical School, but although my acceptance of that invitation was immediate and without hesitation, I confess that I felt and still feel some misgiving as to my ability to select and adequately to deal with any topics which may possess the interest of being more or less cognate to the educational pursuits in which you are engaged, or related to the profession which it is your ambition in future to serve.

Moreover, this duty of delivering an Introductory Address is one, the discharge of which is apt to be regarded by those of us who have grown old in academic life, and have frequently been officially present on similar occasions, as very trite and even tiresome in its repetition. But I desire to remember that it is to the students and not to the older members of the audience which honours us with its presence that my remarks are to be specially addressed. To some at least of the students such an occasion must necessarily be novel; while all of you, I trust, are sufficiently ingenuous to be able to suffer for a little words of exhortation from one who has travelled to the very end of the road upon which you are now setting out.

And you are setting out, gentlemen, at a point of time in the history of the healing art full of good auspices and big with the promise of progress, because its work is now more and more becoming based upon sure and stable foundations. If I contrast its present position and prospects with those it possessed

when I became a student of medicine in the early sixties, language can hardly exaggerate the difference. At that time such boast of comparatively recent progress as existed centred around the use of the stethoscope and anaesthetics, but general bloodletting was not yet wholly abandoned, while the use of leeches and other means of abstracting blood locally was a daily routine. Pathology, as a science, was only beginning to be cultivated, and, except in the University of Edinburgh, I question whether in Great Britain there was any professorship or lectureship, and certainly there was no equipped laboratory, established for its teaching. No separate instruction on the subject was given at all in my own University—that of Glasgow—except such teaching as was connected with the making of post-mortem examinations and with the demonstration of the gross evidences of disease to be found in different parts of the dead body. The microscope was in the hands of experts; but few students were trained in its use. Then, and for many years to come, the methods of diagnosis, of differentiation between hitherto apparently similar states of ill-health, as well as the means of successfully treating and preventing many formidable and most fatal diseases, which have of late years flowed in so full a flood from the still very young science of bacteriology, were, as a matter of course, unknown and undreamt of. The only guides for the physician and surgeon in charge of acute and dangerous illness were the pulse rate, the state of the tongue and the general aspect and behaviour of the patient, for even the clinical thermometer and the temperature chart were not yet devised. That pedantic word *gynaecology* was still uninvented, and the diseases of women were dealt with almost entirely by the physician with the aid of the drugs of the pharmacopœia. Typhoid was only beginning to be generally differentiated from typhus fever; both were abundant in large centres of population, and the latter claimed among its victims large numbers of medical practitioners and medical students, for the subject of Public Health was in its infancy and was neither known, practised nor taught, as we now understand it. Every wound, whether accidental or made by the surgeon, with extremely few exceptions, discharged pus freely; and putrefactive changes occurring in all of them, produced in the atmos-

phere of every surgical ward, no matter how spacious and well-ventilated, a fœtid, sickening odour which tried the student on his first introduction to surgical work more even than the unaccustomed sights of the operating theatre. In every surgical clinique Death held perpetual court, for wound-begotten diseases—hospital gangrene, pyaemia, tetanus, and the rest of the fatal brood, which, thank God, are now to all intents and purposes banished from surgical practice—were never entirely absent, at any time, from the hospitals of that day. No matter how carefully and skilfully an operation was performed, the issue was looked forward to with anxiety and dread. Few of those who did recover did so without serious episodes in their illnesses and disquieting complications of some sort. All suffered from pain and fever, more or less severe, and convalescence was only reached after weeks or months of distressing experiences of many kinds. I have myself, when a student, seen no fewer than five patients suffering from pyaemia which followed amputation for injury, die in the course of one week in a single ward of twenty beds, while other instances of the same disease and of hospital gangrene lay around them. Probably few of you may see more than five amputations of injured limbs during all your studentship—so great has been the progress of conservative surgery—and those which you do see, if only the patients survive the shock of their original injuries, will probably all recover.

For our complete emancipation from the dreadful evils of those dark days of surgery and for no small part of the remarkable advance made also in the domain of the physician, we are indebted to the life and work of that great man, Lord Lister, who died only last February, and whose career has since been commemorated as the boast and the blessing of our profession in every civilized land, and nowhere more heartily and warmly than in this city of Toronto. Great in character, as well as in achievement, he will ever remain an exemplar for all of us; and I feel inclined to suggest to you one or two lessons—we have no time for more—to be derived from facts in his life, lessons which may have special interest for you now and may be of value hereafter. And first, I should like to recall and to relate to you a little chapter of medical history, which concerns him and

must always be of interest to every teacher and student of clinical medicine, surgery and midwifery.

I have indicated to you the awful mortality which occurred in surgical hospitals at the time of which I have been speaking. Equally appalling was that to be met with in all maternity charities. At least one other than Lister was working actively and earnestly, although in a very different direction, with a view, if possible, of furnishing a remedy. I refer to the late Sir James Simpson, the celebrated Professor of Obstetrics in the University of Edinburgh.

He had been long struck by the great maternal mortality then prevalent among the patients of lying-in hospitals, as compared with that which obtained in the case of women delivered in their own homes, and knowing how analogous were the circumstances of the newly-emptied uterus with that of the newly-inflicted wound and how similar were the dangerous and often fatal sequelæ of each, he was prepared to find a like disproportion between the number of deaths of those operated on in private practice and those treated in what he spoke of as "palatial hospitals." It was the unfavorable environment, therefore, of the patient which he regarded as the real cause of disaster, and it was the practice of collecting together many wounded persons under one roof which he set himself, with all his accustomed energy, to denounce, and, if possible, to alter and supersede. He wrote and spoke on the subject with the frequency and force of an earnest agitator, so that much attention was aroused by his views, and not a few influential converts adopted his creed. In a pamphlet entitled "On Our Existing System of Hospitalism and its Effects," he wrote as follows:

"About twenty years ago, in speaking of the effects and evils of our large hospitals—as these hospitals are at present constructed—I took occasion to remark: 'There are few or no circumstances which would contribute more to save surgical and obstetric patients from phlebitic and other analogous disorders than a total change in the present system of hospital practice. I have often stated and taught that if our present medical, surgical and obstetric hospitals were changed from being crowded palaces—with a layer of sick in each flat—into

villages of cottages with one or, at most, two patients in each room, a great saving of human life would be effected; and if the village were constructed of iron—as is sometimes done for other purposes—instead of brick or stone, it could be taken down and rebuilt every few years—a matter, apparently, of much moment in hospital hygiene.' "Since the date mentioned," he continued, " I have conversed on many occasions with many medical men on this subject. I have found, however, that to most professional men it seemed to be altogether a kind of medical heresy to doubt that our numerous and splendid hospitals for the sick poor could by any possibility be aught than institutions as beneficial in their practical results as they were benevolent in their practical objects. When acting in 1867 at Belfast as President of the Public Health Section of the National Association for the Promotion of Social Science, I spoke on the subject of Hospitalism at some length in my inaugural address, and propounded the questions, To what extent are hospitals, as at present constructed, banes or blessings? and, How can they be changed so as to convert them from the former to the latter? I concluded my remarks on this point by again suggesting publicly that to render our hospitals as healthy and useful as possible, and in order to acquire sufficient space and air and isolation for their sick inmates, they should be changed from wards into rooms, from stately mansions into simple cottages, from stone and marble palaces into wooden, or brick, or iron cottages. On the same occasion, after speaking of the relative treatment of some diseases, such as fevers, etc., in and out of hospitals, and after showing—chiefly from the large statistics of Mons. Lefort—that as a general rule, parturient women recovered in a much larger proportion when delivered in their own homes than when delivered in lying-in hospitals, I proceeded to ask: In regard to surgical patients in hospitals, does the same law hold good as in respect to obstetric patients? At the present time medical science is, I believe, in want of any sufficient data to determine the question. The general mortality in hospitals after operations is confessedly very great, far greater than was believed a quarter or half a century ago, when no sufficient statistics had been collected on the matter. The man laid on an operating table in one of our

surgical hospitals is exposed to more chances of death than was the English soldier on the field of Waterloo. Some authors have collected on a large scale the statistical results of some operations, and particularly of amputations of the limbs. Out of 1,656 cases of amputation performed in the hospitals of Paris, and collected by Messieurs Malgaigne and Trelat, 803 died, or nearly one in every two. Dr. Fenwick has collected together from various sources 4,937 cases of amputations of the limbs. Of these 1,562 died, or nearly one in every three or four. 'The assertion,' observes Dr. Fenwick, 'that one person out of every three who suffer an amputation perishes would have been repudiated a few years ago as a libel on the profession, and yet such is the rate of mortality observed in nearly 5,000 cases.' Are the results of amputation," in conclusion asked Sir James Simpson, "in dispensary, private or country practice as deplorable? Adequate data have not been collected. Certainly the general belief of the profession is that in country practice amputations are not so frightfully fatal."

In order to settle this point, if possible, he collected extensive statistics of the results of amputation in rural practice. These he obtained by addressing a circular letter, with an accompanying schedule, to a great number of medical men practising in the provincial and rural parts of England and Scotland, requesting them to furnish him with the results of the limb amputations which had been performed by them in their private practice. The returns obtained from these applications numbered altogether 2,098 cases of amputation. The total number of deaths was 226, *i.e.* one in every 9.2 died, or 10.8 in every 100. He compared with this mortality that of a similar number of limb amputations performed in the Royal Infirmaries of Edinburgh and Glasgow, and in nine of the leading London hospitals. In these 2,089 limb amputations performed in eleven great hospitals by surgeons of skill and experience, he found that no fewer than 855 had died, *i.e.*, 1 in 2.4. In other words, almost one-half of the patients operated on died. Simpson concluded his pamphlet thus:

"This excess, in about 2,100 limb amputations, of 629 deaths in hospital practice as compared with rural practice, in our palatial hospitals as compared with our rural villages and

cottages, in large wards as compared with isolated rooms, is certainly much greater and more pronounced than I myself expected when I began the present inquiry. But must the calling of this dismal death-roll go on unchallenged and unchecked? Shall this pitiless and deliberate sacrifice of human life to conditions which are more or less preventible be continued or arrested? Do not these terrible figures plead eloquently and clamantly for a revision and reform of our existing hospital system?"

The pamphlet from which I have thus freely quoted was published and scattered in great profusion and in all directions in the spring of 1869, and if it did not succeed in bringing about the reform of hospitals which its author desired, it was not because he died only a year after its publication. There were many ardent disciples who would gladly have carried on the propaganda. But, happily, the difficulty was to be solved in a very different way. Just after leaving Glasgow in 1869, and only a few months before Simpson died, Lister published a paper entitled "On the Effects of the Antiseptic System of Treatment upon the Salubrity of a Surgical Hospital." His first experience as a hospital surgeon began in the Royal Infirmary at Glasgow, at that time one of the most unhealthy of hospitals; but, ere he left it, the effects of his new treatment on the health of the wards was manifest to all who witnessed them. As he himself declared, that treatment was in the highest degree beneficial, converting the wards from some of the most unhealthy in the kingdom into models of healthiness. I shall read to you the concluding sentence of his paper:

"The result of this great change has been to demonstrate conclusively that the exhalations from foul discharges are the essential cause of the insalubrity of surgical wards, and, when this is effectually suppressed, other conditions, which we are accustomed to regard as most pernicious, become powerless to produce serious evil. It is obvious that the facts recorded in this paper are of extreme importance with reference to the vexed question of hospital construction. With a view of assimilating the atmospheric conditions of our large hospitals to that of a private dwelling, it has been lately proposed to do away with them altogether in their present form, and to substitute

for them congeries of cast-iron cottages, capable of being occasionally taken down, cleansed and reconstructed—a plan which, besides involving enormous expense, would interfere most seriously with the proper supervision of the patients and with the teaching of students at the bedside. From what has been related above it is plain that no material alteration will be required. We have seen that a degree of salubrity equal to that of the best private houses has been attained in peculiarly unhealthy wards of a very large hospital by simply enforcing strict attention to the antiseptic principle. And, considering the circumstances of these wards, it seems hardly too much to expect that the same beneficent change which has passed over them will take place in all surgical hospitals, when the principle shall be similarly recognized and acted on by the profession generally. The antiseptic system is continually attracting more and more attention in different parts of the world; and whether in the form it has now reached or in some other and more perfect shape, its universal adoption can only be a question of time. The noble institutions of which our country is justly proud, admirably adapted alike for the treatment of the sick and the instruction of the student, will then be cleared of the only blot that now attaches to them—the malignant influence of impure atmosphere."

How amply those anticipations have been fulfilled is probably known to all of you. The very word "hospitalism" died an early death and has entirely dropped out of medical literature. Our splendid opportunities of successfully prosecuting clinical practice, research and instruction have by Lister's instructions been more fully preserved to us. It requires no great power of imagination to realize how entirely they would have been destroyed and lost by any scheme which scattered our patients over very many roods of ground and housed them in camps or villages of two-roomed cottages. Instead, fortunately, they are still accommodated and compactly housed in flats even more numerous than Sir James Simpson ever saw, and with even larger "layers of sick" on every floor. No outcome of the antiseptic system of treating wounds occasioned Lister more pleasure and pride than this one. The Royal Infirmary of Glasgow, in which he had such unhappy surgical

experiences when he joined the staff in 1861, has yielded, almost from the time he left it until its recent reconstruction, although composed of the same walls and floors as in his day, as good results as any other hospital in existence. He himself had always practised in very old hospitals and operated in theatres of old-fashioned construction, but he knew that he could depend on securing the best results in his wounds; and so he proved the fact that it was not necessarily change in the environment of the patients, but the avoidance of sepsis in their wounds, which was required to ensure salubrity and a low death-rate in surgical hospitals. To that discovery you owe the continuance of your splendid and convenient opportunities of clinical study. You owe also a corresponding sense of gratitude to the memory of the man who made the discovery in the face of much hostile and often bitter criticism and at a most serious crisis in the history of hospital administration and construction.

One fact in his own education, which Lister often referred to in conversation, with much satisfaction, was the excellent knowledge which he acquired from his teachers of the preliminary scientific subjects of biology, chemistry and physics. The former he regarded as the best, and, indeed, the proper introduction to the scientific study of human anatomy and physiology, while he recognized that the knowledge which he had gained early in life of the two latter proved his best equipment for the work which he afterwards undertook. To the great importance of these early studies, therefore, I venture to direct your attention, and I do so the more readily because there is not wanting at the present day, a certain tendency towards minimizing their value to the medical student. I thoroughly realize how crowded is your curriculum, even although five years are allotted to its completion, and how constantly your attention is enchained and your energies dissipated by preparation for frequently recurring examinations. Many persons who guide opinions in matters relating to medical education, at all events in Great Britain, have been led to advocate that the congestion of the medical curriculum should be relieved by relegating these subjects entirely to the period of school life. Already the Conjoint Board of England accepts from candidates for their

licenses certificates of study in these subjects from various public schools, whose laboratories and means of teaching have been inspected by visitors from that board, and whose instruction they recognize for that purpose. For a time a majority of the General Medical Council of Great Britain and Ireland resisted this innovation, but have now apparently accepted it. Of this change Lister strongly disapproved, and often expressed the hope that, at all events, the Universities would never give their countenance to it. If the student must be relieved of some of the burdens which weigh so heavily upon him, I believe it will be wiser to seek for that relief in the lessening of the number of his examinations rather than that of the subjects of study which now find a place in his curriculum. When I was a student, Lister was Professor of Systematic Surgery in the University of Glasgow, and he always exempted those who had conducted themselves creditably in the surgery class-examinations from further examination in that subject in the final trial for their degree. In some such direction I think that relief for the over-burdened student is to be sought in our Universities rather than in adopting any course which might appear to minimize the importance of the preliminary scientific subjects. Their value to the medical profession may, in some degree, be gauged by the enormous increase of power which has accrued to its practitioners from the labours of special cultivators of those fields of science. It was upon the discoveries of Pasteur, a chemist and not a medical man, that Lister based the researches and work which have renovated the whole practice of surgery, and converted it from an empirical and disappointing into a scientific and reliable art. A great, useful, and permanent addition to our resources has lately been given to us by a physicist, Professor Röntgen, in X-ray photography; while the real cause of syphilis, for the discovery of which medical investigators have been straining their eyes for generations, has recently been identified in the form of a protozoal organism, by one who was not of their number—Schaudinn, a biologist. Surely no facts could better indicate the part these sciences may play in the advancement of medicine and surgery, and nothing could more clearly point out to the medical student the wisdom of acquiring a thorough ac-

quaintance with such parts of them, at least, as bear, or may even give the promise of possibly bearing, upon the future work of his life.

I have referred to the hostile and at times rather bitter criticism which assailed Lister in the earlier days of his life-work from many influential quarters. This opposition was due probably not to any disregard for progress and development in the surgical art, but rather because surgeons felt that they were suddenly asked, by a young and comparatively unknown teacher, to give up cherished beliefs and modes of practice to which they had been long accustomed. They had been used, from time to time, to welcome and adopt newly devised operations, improved methods of treating individual diseases, or classes of diseases, recently invented instruments and apparatus of all sorts, as well as novel additions to their resources of even such wide-reaching consequences as in the case of anesthetics. But here was a change, a complete revolution in the whole practice of the art, and their conservative instincts forbade them, at first, to follow a lead so unexpected and so much at variance with all former experience and usage. "One man knew a secret way into the city," says a Spanish proverb, "but the besiegers said, why should we who are so many, follow one man?" This was the spirit of large numbers of those who resisted any acknowledgment of the value and of the originality of the new treatment, for those who offer opposition to any new advance always first dispute its value, and when proof of its value begins to accumulate, try to cover their retreat by questioning its originality. This attitude of many of the leading practitioners and teachers of surgery was often most discouraging and depressing to Lister, although it never made him relax his enthusiasm and industry. One sustaining consolation which he constantly spoke of at that time, was the support which he received from his own students and from the young practitioners who frequented his wards. "I have always had youth on my side," he used to say with great and joyful satisfaction, when he felt discouraged by the coldness of colleagues and contemporary practitioners. In this connection it may not be uninteresting if I read to you a sentence or two from a letter which I received from a distinguished surgeon of America,

acknowledging a copy which I had sent to him of an account I published a few years ago of the history of the evolution of antiseptic surgery.

"Your book carries me back," he wrote, "to the spring of 1869, when as a student I had spent three years in Europe, after taking my medical degree at Harvard. I was then on my way home, thinking I had acquired all there was to know of up-to-date surgery. I had heard for the first time of a man in Glasgow who healed wounds without suppuration. I remember attending a meeting of the Pathological Society in London and hearing some surgeons laughing about this report. I cut away from a delightful four-in-hand trip through the south of England to put in a last week of my three years with Lister. I was cordially received and remember well his saying after a discussion: 'I do not expect my contemporaries to accept this doctrine; I look to you, the coming generation, to adopt it.' It did, indeed, take a generation to establish it in all its present perfection, as you have so interestingly shown."

In the Introductory Address which Lister delivered to the students of Edinburgh on "The Causation of Putrefaction and Fermentation," when he entered there upon his duties as Professor of Clinical Surgery, in the winter of 1869, he concluded in the same strain of confidence in their ability to draw just conclusions in matters of fact. "I commend these facts," he said, "to your candid and impartial judgment, beseeching you to form your own opinion regarding them. The minds which you bring to bear on this subject to-day are very much the same as they will be throughout your lives. An observation which any one of you may make now will serve, in after life, to illustrate a course of lectures, should he occupy a position corresponding to that which I have now the honor to hold. And you are as competent as you ever will be to draw logical conclusions from established data. Do not let any authority shake your confidence in knowledge so obtained."

From these various references to the history of the time, you will see that Lister always entertained a high opinion of and reposed much trust in the ingenuousness of the youthful mind. Well-educated and thoughtful youth possesses always a strong, I am almost tempted to say, an unerring instinct to

detect the spirit of the age in which its lot is cast. "With every generation," it has been well said, "there springs up a new order of ideas. The earlier the age at which a man seizes the ideas that will influence his own generation, the more he has a start in the race with his contemporaries. Now, the ideas that influence the mass of the rising generation never have their well-head in that generation itself. They have their source in the generation before them, generally in a small minority, neglected or contemned by the majority which adopts them later." It was the consciousness of such a truth as this which made Lister confident and satisfied when he realized that youth was on his side. It is well, therefore, for you to remember that you are as well qualified now as you will ever be to observe facts and to treasure them up in your memory; nay, more, even to draw such deductions from them as logic and common sense will enable you to draw. But here I desire to offer you a warning. You will be wise if you refrain from attempting to go further than this in the meantime. You are not qualified and must not deem yourselves yet qualified to generalize and to form and express final opinions on matters relating to medical and surgical practice. Your duty is now to gain and gather knowledge; but you must realize that it is a knowledge which is not at once power, because you have not yet learned the mode of applying it; have not yet progressed toward converting your knowledge into wisdom by adding to it experience. You are necessarily still in the stage when "knowledge comes but wisdom lingers;" a stage will come later when you will realize that "learning may wiser grow without its books."

> "Knowledge and Wisdom, far from being one
> Have oft-time no connection. Knowledge dwells
> In heads replete with thoughts of other men;
> Wisdom in minds attentive to their own:
> Knowledge, a rude unprofitable mass,
> The mere materials with which wisdom builds,
> Till squared and smoothed and fitted to its place,
> Does but encumber when it seems t' enrich—
> Knowledge is proud that he has learned so much,
> Wisdom is humble that he knows no more."

While, therefore, you will do well to remember that in the pursuit of knowledge you are as free as you ever will be to make observations, whether in the science laboratory or in the hospital ward, and even to draw such conclusions as any well-educated mind may suggest to itself, you are not safe to form and adopt final opinions. I offer you this warning because I know that many persons are ready to say to the student: "Maintain at all hazards your independence of judgment. Accept little or nothing as fixed and settled and pay the slightest possible deference to authority and tradition. Call no man your master. *Nullius addictus jurare in verba magistri.* Prove all things, but hold fast only those which appear to you to be good." Such persons, on the other hand, tell the teacher that his only legitimate function is to give a full and faithful account of his subject; to bring before the minds of his students, with what vividness he may, its principles and details, sinking all pet opinions, all personal bias, all dogmatic doctrine; to describe, without feud or favour, the conflicting views of its cultivators, remembering that when he reaches matter which has been or still is the battle-ground of contending parties, his office is not one of advocacy, but one rather of judicial summing up, leaving each of his hearers to arrive at a verdict for himself. But persons who tender such advice as is here indicated appear to forget a very important fact, viz., that, while a tyro in the subject is quite able to observe for himself, he is not in a position to generalize. In matters of opinion it is necessary for him to take much upon trust. It, therefore, becomes the duty of the teacher, in my humble view, where he holds convictions, to let them be heard with no uncertain sound. Implicit belief in them is not required and cannot always be expected, but they serve to fill up gaps, so to speak, in the view which the individual is endeavouring to get of the subject, and they at all events do service until confirmed, modified or displaced by his own experience. There is nothing so hopelessly bewildering, so completely unsatisfying to any one learning the details of a subject, either from a book or a teacher, as the enumeration of a great variety of opinions, without the slightest hint with which, if with any, lies the sympathy of the writer or lecturer. I have never heard a complaint from a student that he

found a book or a teacher too opinionative; but I have heard this other complaint that the one contained or the other taught the opinions of too many people.

From all of these considerations it will be obvious that each stage of life has its own duties and its own limitations, and that he will probably best guide and realize his own destiny who most truly and fully appreciates these as they successively arrive. Robert Louis Stevenson writes in one of his short essays, "To love playthings well as a child, to lead an adventurous youth, and to settle, when the time arrives, into a green and smiling age is to be a good artist in life and to deserve well of yourself and your neighbors." To recognize the limitations which surround your present stage of life, to apprehend fully that its chief end is the acquisition of knowledge, and that your present training has or ought to have for its object, to teach you how to learn from your future experience; to submit gradually your knowledge to the test of that experience, until it has grown into wisdom by being "squared and smoothed and fitted to its place;" to use the wise skill thus obtained conscientiously and industriously during your active life for the good of your fellow-men, and—hardest task of all, perhaps—once more to recognize the limits of your powers when age approaches and natural force abates, is to be a good artist in a medical career, and to deserve well of yourselves, of your brethren and of the public. There is a French saying, "*Si jeunesse savait, si vieillesse pouvait.*" Would that youth were endowed with experience and old age with vigor! But the aspiration is a foolish one except in so far as it emphasizes the fact that the contrary is the truth. We shall make the best of our lives if we plan them so that we learn well while young, work hard and strenuously during our manhood, and are content cheerfully to withdraw from the struggle as old age approaches.

But it is a struggle in which something more is needed for success than accurate knowledge and wise skill. The practitioner must recognize that a high moral standard of conduct is required of him. It is difficult to convey in a few sentences what such a standard should be. I once made the attempt to indicate this to an audience much the same as that which I have now the honour to address, and, perhaps, I cannot do better

than repeat to you the words I then used. "The practitioner of medicine," I said on that occasion, "however ably he cultivates both its science and art, will fall far short of its highest ideal, unless he also tries to illustrate, in his daily round, what one may call, for want of a better term, the moral side of his profession. To devote himself to a daily and often self-denying personal service of the sick; to render that service truthfully, soberly and chastely; to resist all temptations to self-advertisement and the depreciation of rivals—for the depreciation of others is only another form of self-approbation; to be silent in regard to much of what he sees and is told in the houses into which he enters; to be chivalrously regardful of the modesty of women, sympathetic with the easily aroused fears of little children, and patient with all manner of men; to feel on many an occasion much more anxiety than he shows; not to be untruthful to the sufferer from hopeless disease, and yet to remember, as Sir Thomas Browne, himself a physician, has said, that 'it is the heaviest stone that Melancholy can throw at a man to tell him that he is at the end of his being'—these, and many other difficult duties and acts of self-discipline like these, are incumbent upon every medical practitioner."

Gentlemen, the ideal of conduct such as I here endeavor to indicate is far from being easy of attainment, and there are few of us, perhaps, who completely and adequately fulfill its requirements. But all its essentials may be learned and practised even during your student life. The formation of your character is in process as surely as is your acquisition of knowledge, and in wishing you all success in your work here and hereafter, I conclude by impressing upon you that he who faithfully pursues his studies now, who gradually acquires skill by the fusion of his knowledge with his growing experience and who guides all by a high ethical standard in respect both of his patients and of his professional brethren, is the man who, in the struggle of the coming years, will be found amid the sunshine and the hope of the van, and not amidst the dust and fatigue of the rear.

REMARKS ON THE VALUE AND THE FALLACIES OF STATISTICS*

BY R. A. REEVE, M.D.,
President of the Academy of Medicine, Toronto.

Demography, a term first used by Achille Guillard, in 1855, is the science which deals with the statistics of health and disease among humankind, and of the incidents involved in birth, life and death. Employed by him to designate present-day vital statistics, it has now a much wider meaning and deals with data and problems that concern the physical, mental, and moral well-being of the individual, the community, the nation, mankind. It is naturally related to hygiene or sanitary science, as was readily apparent at the recent International Congress on Hygiene and Demography at Washington. (It seemed odd to the speaker while there, that there should be need for a great separate organization and congress on tuberculosis, the prevention of which is such a prominent feature of hygiene.) Demography has now an assured place and is of growing importance, but it should ever be borne in mind that statistics may be extensive and elaborate, compiled with the greatest care and best motives, and yet, as in the case of asepsis, one faulty link in the chain may vitiate otherwise most valuable work.

The value of statistics has been marred too often by neglect to observe the dictum of Herschel, the great mathematician and astronomer, in regard to "mean" and "average." He says, "All the philosophical value of statistical results depends on a due appreciation of this distinction and acceptance of its consequences." "An average gives us no assurance that the future will be like the past. A mean may be reckoned on with most implicit confidence."

"Statistics are used for describing and analyzing large groups or aggregates, too large or complex to be intelligible by simple observations."

Owing to sources of inaccuracy which are often unavoidable, "Statistical results are very generally estimates rather

* Delivered at the opening session of the Academy of Medicine, October, 1912.

than exact statements, and it is a matter of the very greatest importance to learn to what degree of accuracy various statements can be trusted, and to obtain methods of neutralizing the effects of errors and omissions of all kinds." Statistics form a connecting link between the knowledge of the past, present experience, and future development.

Let me quote further from Bowley some rules for using published statistics.

"It is never safe to take published statistics at their face value, without knowing their meaning and limitations, and it is always necessary to criticize arguments that are based on them, unless one is able to trust implicitly the knowledge and good faith of the persons bringing them forward. It is extremely easy to falsify the lessons which numerical statements should teach." "The actual use and appreciation of statistics is ultimately a matter of intelligence, special knowledge, and common sense."

"In all statistics we must decide whether the data and methods will yield results accurate enough for the arguments based on them."

Here one should refer to Insurance, which engages the earnest attention of many of the best men of the profession, and the early history of the evolution of which in its various departments forms an almost fascinating chapter. Absolutely based on the collection, compilation, and analysis of statistics and other data, the present highly perfected and beneficent working of its complicated machinery, which so intimately concerns the welfare of great and increasing masses of mankind, is a striking tribute to the genius which has built up such an elaborate and altruistic system. It is interesting to note that in spite of its deficiencies, the Northampton Table introduced in 1780, with which the name of Dr. Wm. Price is so honorably linked and whose researches it is said "first brought to general apprehension the conviction that a large basis of observed facts is the only source of real knowledge," remained for a century by far the most important table of mortality. Indeed, in spite of inevitable defects, it compares not unfavorably in accuracy of forecast with eight later and some recent tables compiled by English, German, French and American workers, and based

on the analysis of many millions of cases. (See article in the *Encyclopædia Britannica*, 11th edition.)

Statistics constitute the key to unlock great storehouses of information. It is our duty and privilege to keep in touch with the *living* past, and statistics are a valuable means to this end. They present in an orderly way, and condensed, almost microscopically, the result of many men's joint work, or of the herculean labors of one and another, as, *e.g.*, Hunter, Jenner, Louis, Koch, Pasteur, Lister, and constitute a priceless boon and legacy. Seemingly cold and lifeless, they retain their germinal power and will fructify equally with the golden grain that Pharaoh saw waving on the banks of the Nile and which has been rescued in these days from the swathing clothes of Egyptian mummies.

Much credit is due to Pierre Charles Alexander Louis, 1787-1872, who in 1825 published his anatomical, pathological and therapeutical Researches on Phthisis: "To this object he devoted four to six hours daily for seven years," spending his time in the hospital and dissecting room. His dictum was, "By numbers only can we ascertain the frequency of this or that symptom; by a definite enumeration alone is it possible to utilize the relations of age, sex, and the constitution of our patients for the settlement of the proposition that this or that symptom occurs in any disease 10, 15, or 50 times in 1,000 cases. By means of statistics only are we able to find an average number, from which we may conclude as to the frequency or duration of a symptom, or of an entire disease, and finally as to its crisis." Louis employed all the modern aids, even counting the pulse most accurately with the assistance of the watch marking seconds.

To utilize properly, to make the best of data at command, is to have an open and judicial mind free from bias and prejudice, *i.e.*, "To orientate oneself correctly in the mass," as Ehrlich puts it.

Permit a brief reference to some points in vital statistics culled from Tatham in Allbutt's System, an authority who shows these qualities.

"Scarlet Fever.—It is beyond question that in the course of the last thirty years English mortality from scarlet fever has

decreased greatly and very rapidly, and, moreover, that the fall has been remarkably uniform at those ages which are peculiarly susceptible to infection."

Diphtheria.—In the three decades ending 1900 "there has been in England a notable increase in diphtheria mortality, while, strange to say, the mortality from scarlet fever has declined in a very remarkable degree. So, also, it is proved that the mortality from diphtheria is only one-half in rural parts that in urban localities." Here two reasons at once occur to one, the slum conditions, and the overcrowding of school-rooms in the larger centres of population.

"Weekly records of the infectious cases notified in London are now furnished to the Registrar-General and published by him in the usual weekly return." As these records relate to the largest urban community in Europe, and show not only the ages of the persons attacked, but also the distribution of sickness over the administrative county, they constitute "a unique and most valuable addition to the statistical literature of state medicine." "The causes of death, in combination with the ages at death, were abstracted in England for the first time in 1847; consequently this is the earliest year for which it is possible to calculate even approximate rates of mortality. The Compulsory Certificate Act (as to the cause of death) became law in 1874,—a source of fallacy, as even recently the proportion of deaths *medically* attested was only 91½ per cent., or only 1.1 more than in 1879, which for scientific purposes is quite defective. Again, as a source of error, the "*causes* of death" were in many cases imperfectly recognized. However, an analysis by Dr. Tatham of 1,000,000 *registered* deaths and of a much greater number of births of the last quarter of the nineteenth century "showed the disquieting fact that the mortality of infants has remained stationary."

"Among persons of both sexes below the age of 25 years, phthisis mortality has fallen, on the average, by from 50 to 60 per cent."

"Onwards from the earliest period regarding which official statistics exist, the record of *cancer* in England is an unbroken one of steadily increasing fatality, going up from 196 per million at all ages (males) to 732; in females from 449

to 1,003 per million. The male rate has more than trebled, and the female more than doubled, the death rate steadily increasing from 35 years onward—the mortality in the rural districts being lower by nearly 10 per cent. than in the urban."

The care and intelligence required in properly utilizing statistics is very well shown in regard to cancer statistics. Cancer is much more common as records show from 35 years onward; hence statements in comparison of cancer *at all ages* in different places would be fallacious, "unless the age and sex constitution of the respective populations has been found to be similar."

A valuable and impressive object-lesson in regard to preventable diseases is furnished by the records *re* tuberculosis. "In the year 1854 the deaths from all forms of tuberculosis together constituted about a seventh part of the deaths from all causes, which latter were in the proportion of 22.5 per thousand of the population. Half a century later, namely, in 1903, the general death-rate had fallen to 15.4 per thousand, and of these only a ninth part resulted from tuberculosis."

In a personal communication from Dr. Tatham, ex-Deputy Registrar-General of Great Britain, Dr. Tatham says: "Referring to the subject of your letter, I can only add very little to what I advanced in my article in Allbutts' System of Medicine some years ago. Further experience, however, of medical statistics confirms the opinion I have often expressed, both officially in the Registrar-General's reports, and in essays and articles elsewhere. And if I were now asked to indicate the principal obstacle to the legitimate employment of vital statistics as a means of questioning the healthiness or unhealthiness of a people, I should unhesitatingly point to the *want* of a *complete national system* of *sickness* registration, as supplementary to the existing system of death registration.

At present, as you know, it is everywhere the fashion to rely, for this purpose, on a mere statement of the death-rate, often without any corrections for differences among the living, in respect to age, sex, or occupation; and without working allowances for the wide differences existing in the fatality of his principal diseases, both in time and place. In this country the *beginning* has been made of a system of sickness registra-

tion, but *this is partial only,* inasmuch as it relates only to dangerous infectious diseases, including tuberculosis. It goes without saying, however, that what is really required in order to give a fair test of the health and vitality of a population, is a *complete registration of sickness of all kinds.* That this ought not to be impracticable of attainment, especially since a record is now required by the English Local Government Board of the whole of the sickness attended by parochial medical officers.

Surely, therefore, it should be possible to obtain from the case books of the various hospitals a statement of the remaining cases of sickness attended at the public expense, and in this way a record would be available of the sickness occurring from time to time amongst a very important section, although not of the whole of the population of this country. I should be interested to learn how far you think it feasible to manipulate such a system in your own splendid and progressive Dominion of the British Empire."

Statistics on a large scale and practically free from error are those dealing with the relation of the urban to the rural population in countries, and with the data of immigration. According to Bryce the increase in urban population is shown to be greater in Canada than in the United States. Increase of urban population 38 per cent. in the United States, and 62 per cent. in Canada in 10 years. The number of aliens arriving in Canada five times greater in proportion to population than in the United States.

On the other hand estimates and forecasts based on data of people and places but little affected by shifting tides of humanity prove ineffective when applied to the large and quickly growing countries in the new world. One disturbing factor that spoils calculations is the almost alarming increase of slums and their denizens in the great cities.

Mortality statistics based on the United States census furnish an example of statistics on a prodigious scale, faulty because incomplete. In only some of the States are proper registration laws enforced, and of a population of ninety-two million only about fifty-four million were subject to registration in 1910, or only 58.3 per cent., or nearly three-fifths of the entire estimated population of the United States proper. In

the matter of death rates alone, that of the registration area was 15 per 100, but it is evident that in a number of the States not included the death rate may be very much higher, and this would raise the general average. Moreover, despite the missionary work of Dr. C. L. Wilbur, of the Bureau of the Census, Washington, and of various active State Health Officers, registration is defective and therefore yields unsatisfactory data.

Fortunately a marked advance has been made in recent years.

Time does not permit my dwelling upon the statistical results of Ross's brilliant work with the mosquito and malaria, and of the stamping out of yellow fever by the self-sacrificing labors of Reed, Carroll and Lazear, and Col. Gorgas' phenomenal success in the Panama Canal zone.

Of course, Dr. Seidlelin, of Liverpool, will require to present very convincing statistics in order to establish his claim that yellow fever is due to *Piroplasma flavignum* (and transmitted by *Stegomyia fasciata*), which he announced at the recent Congress.

A notable instance of the importance of results in even a few operations is presented by the thirteen ovariotomies of Ephraim McDowell, of Kentucky, who was the first man to perform the operation "in a rational and deliberate manner," *viz.*, in December, 1809. The patient lived thirty-two years afterwards. Of McDowell's thirteen cases eight were successful (after the English way of reckoning).

We are justified in putting in the same category Spencer Wells' early work in the same field. Similarly, great value must attach to the record of Von Graefe's brilliant results of his new operation of iridectomy for glaucoma.

Sometimes the record of a unique operation, or of a few rare and difficult ones, may prove of great value in showing the possibilities and also in paving the way for a new and advanced line of practice. For example, the ligature of the innominate artery, in 1818, by Valentine Mott, the patient surviving for a length of time, established the practicability and propriety, in certain cases, of the operation. The statistics and data which this great surgeon was able to present to the profession during a course of nearly fifty years—138 ligations of large

vessels, including eight of the subclavian—must have had marked influence upon practice in his day, and later.

Statistics may be faulty, and therefore inaccurate and misleading, because points are neglected now known to be essential to the differentiation of diseases. Take, for example, typhoid and para-typhoid fevers. The statistics regarding rheumatism may also be considered imperfect from the same cause. The extensive use of blood-count and results of spinal puncture, the testing of blood-pressure, etc., also tend to impair the value of statistics already made in this regard.

Another irregularity which vitiates results sometimes occurs in reporting medical or surgical cases, as where one speaks of having one hundred consecutive operations of one kind or another, not meaning one hundred consecutive cases. I myself knew of an instance of a surgeon reporting twenty successful cases of opticociliary neurectomy as a substitute for enucleation of the eyeball, omitting to mention that the twenty-first case ended fatally, and this in face of the fact that many operators had done hundreds of enucleations without any such sad experience.

Surgery before Lister's time, at least major operations, more especially in the great hospitals of every country, despite the care and skill of operators, was very largely "the slaughter of the innocents." Now, the foundation of Lister's work was laid by Pasteur, many of whose experiments were performed upon *living* animals, yielding results which could have been reached in no other way. Myriads of animals themselves, and untold wealth, have been preserved as a result of Pasteur's researches, while Lister has in his sphere been acclaimed the greatest benefactor of mankind. Ignoring the immense array of data setting forth the magnificent achievements of Pasteur and Lister and other eminent co-workers, antivivisectionists keep up their misguided crusade, and harass humane and serious searchers after truth in their experimentation on animals.

The following quotation from a speech or address by Bergh would seem to show that they are past redemption:—

"As another proof of the profane extremes to which these dissectors of living animals will go, Robert McDonald, M.D.,

on being questioned, declared that he had opened the veins of a dying person, remember, and had injected the blood of an animal into them, many times, and had met with brilliant success. In other words, this potentate has discovered the means of thwarting the decrees of Providence where a person was dying, and snatching away from its Maker a soul which He had called away from earth."

It seems, as Bowditch well says, that this blasphemous denunciation of a physician for saving human life needs absolutely no comment. "Misguided benevolence" is altogether too mild and merciful a designation for the *motif* of this cult.

That a change for the better is really occurring in opinion and attitude on the part of the public in regard to securing immunity is shown by the fact that Goltman, Medical Health Officer, Memphis, secured 25,000 vaccinations during an epidemic in that city. This is in marked contrast to the behavior of very many towards smallpox.

The scientific world with few exceptions accepts the sententious statement of Tatham: "Both the prevalence and the fatality of small-pox in any time or place depend absolutely on the condition of the community with respect to vaccination"; but that "none are so blind as those who will not see," is well shown in the strong opposition still manifested against vaccination in many quarters, especially compulsory vaccination. And though much has been done to educate the people, and there is incontestable evidence of the great prophylactic value of vaccination after modern methods, with a minimum of risk entailed, much indifference and quiet if not active objection still exist in regard to the application of Jenner's immortal discovery.

Although stress has been laid rightly enough upon the importance of having a large body of statistics upon which to base conclusions, it would be a mistake to ignore the value in certain instances of even a few carefully observed and accurately recorded cases. For example, the fact that digitalis may cause marked nervous disturbance, delirium and temporary aberration, based on the unusual but undoubted occurrence of this train of symptoms during its administration and which cease on discontinuing its use. That it very seldom supervenes

is, of course, shown by the large number of cases exempt, but the evidence of the few should be accepted.

In this connection I may refer to the treatment of delirium tremens by heroic doses of digitalis, half-ounce of the fresh tincture repeated every four to six hours, *pro re nata,* which I was tempted to try with the consent of the attending staff when house-physician and surgeon, apothecary, night-nurse, in charge of maternity and of smallpox cases in the basement. The result in six or eight cases, some of them of the gravest nature, in which I was permitted to adopt this line were most gratifying. As a body of statistics this number of cases was insignificant if not useless, but it at least proved that six men could take enormous repeated doses of this powerful drug without lethal result; but of course one could not, from such data, decide what the effect would be on healthy subjects.

Too much stress cannot be laid upon the faithful observance of the conditions required. Fidelity to truth and prompt and thorough reporting are essential to making clinical records reliable; and as in the case of the living witness in court, they should tell the truth, the whole truth, and nothing but the truth. Even when the reporter essays this difficult task, the result of his most painstaking work, and on a large scale, may be vitiated by some fault of method or unwitting mistake. A regrettable instance in point is furnished by the experience of Sir Almroth Wright in the matter of anti-typhoid vaccination. All honor to him as the pioneer and for the results he obtained. In 1897 he started a strenuous and most commendable campaign: in 1898 he vaccinated four thousand men of the British Indian Army, and in 1900 the vaccination of the troops sent to South Africa was practised. He furnished some 400,000 doses, and it is understood that 100,000 men were inoculated one or more times, but he stayed his hand for certain reasons. Colonel Leishman, the successor of Sir A. Wright at Netley, has recently stated his belief that much of the vaccine of earlier days was inert because of overheating during its preparation, and that with proper care it was possible to produce a uniformly good and potent vaccine. Colonel Leishman's principal modifications have been the reduction of the temperature used in killing the cultures from 60, to which they were formerly exposed, to

53, and the addition of the lysol only *after* the vaccine has been cooled.

In a list of 14,000 persons vaccinated given by Leishman there have been reported to date 6 cases of typhoid, with no deaths, while among the remainder of the army during the same length of time there have been 418 cases with 32 deaths. The rate per thousand among the vaccinated is approximately 0.4, while among the unvaccinated it is 6, or fifteen times as high. Only one-sixth of the force has been immunized; had the entire army been vaccinated the same rate of incidence would have given only 36 cases rather than 418.

Major Russell, American Army, whose experience with anti-typhoid vaccination began in 1908, early in 1909 vaccinated all who volunteered. In 1909 he immunized 1,887 persons; in 1910, 16,073. For 1911 the figures are not yet complete, but are estimated at over 80,000, making the total number of persons immunized approximately 100,000. Over 80 per cent. of these have received the full course of three doses. His conclusions are:—

"1. Antityphoid vaccination in healthy persons is a harmless procedure.

"2. It confers almost absolute immunity.

"3. The duration of the immunity is not yet determined, but is assuredly two and one-half years, and probably longer.

"4. Only in exceptional instances does its administration cause an appreciable degree of personal discomfort.

"5. It apparently protects against the chronic bacillus-carrier, and is, at present, the only known means by which a person can be protected against typhoid under all conditions.

"6. All persons whose professions or duty involves contact with the sick should be immunized.

"7. The general vaccination of an entire community is feasible and could be done without interfering with general sanitary improvements, and should be urged wherever the typhoid rate is high."

Although the *treatment* of typhoid fever itself by vaccine has not been long in vogue, and the cases are not very numerous, a series collected by Russell of 118 with 5 deaths, gives a mortality of only 4.23 per cent., which is distinctly lower than has been obtained with any other treatment.

At the recent Congress, Capt. C. F. Craig, of the Medical Corps, United States Army, presented official statistics showing the great decrease in the numbers of infections and deaths, after anti-typhoid vaccination in the armies of England, Germany, France and Japan, and after weighing other factors bearing upon the results attained, he concludes that to anti-typhoid vaccination alone should be credited most of the improvement.

The value of data already being gathered on a very large scale by the inspection of school children was incidentally shown in a paper at the Congress on Hygiene by one of the staff of Johns Hopkins, who gave as his estimate deduced therefrom 20,000 typhoid bacillus-carriers in a population of 600,000 in Baltimore. This elicited in discussion the interesting statement that the bacilli of typhoid which so commonly persist in carriers in the naso-pharynx had been speedily killed by repeated spraying with a diluted emulsion of *staphylococcus pyogenes aureus*. Here again success in a limited number of cases would seem to promise like results in a larger series.

The lessons of Demography are sometimes learned slowly and at great cost: In the Franco-Prussian war, the loss from preventable diseases was appalling, and in the Spanish-American war the United States troops had 1,400 deaths from disease (almost wholly typhoid and dysentery) to 100 from wounds. In the Boer war the English lost the services of an army corps from enteric in the first two years. The fine results of scientific hygiene in prophylaxis were well shown in the Russo-Jap campaign.

There is a lesson for laboratory and clinical workers everywhere as to the danger of premature publication of results in the case of that eminent worker, Koch, in connection with tuberculin. Unfortunately he did not show the almost infinite patience of Harvey and Jenner.

The epithet "fallacy" is hardly strong enough to apply to any attempts to give value to statistics based upon the unique distortion of the principles of inoculation evidenced by one of a certain cult who explained his success in drawing large numbers to be vaccinated by the fact that he kept a heifer and used her—not wisely but for long—by inoculating one of her teats at a time!

Society Proceedings

THE ACADEMY OF MEDICINE, TORONTO

The first stated meeting of the Academy of Medicine for the current winter took place on Tuesday evening, October 1st, at the home of the Academy, 13 Queen's Park. The attendance was easily the largest in the history of the Academy, the auditorium being completely filled and many having to sit in the hall and on the stairs. The new President, Dr. R. A. Reeve, occupied the chair, and the Academy was honored with the presence of Sir Hector C. Cameron, of Glasgow. The President delivered his inaugural address, which appears in this issue, and we take this opportunity of congratulating Dr. Reeve upon his effort, his address being masterly.

Before the President delivered his address, Dr. J. W. S. McCullough presented the Academy with a volume of manuscript clinical records of cases of women patients treated in the Edinburgh Royal Infirmary, 1787-88, under the service of Dr. Gregory, the chief clerk being Simon Fraser.

After the inaugural address, the Academy was greatly delighted with a half hour's address on "The Treatment of Abscess and Some Historical References to Antisepsis" from Sir Hector C. Cameron, of Glasgow, who spent a few weeks in Toronto as the guest of Mr. Irving Cameron. Sir Hector came as no stranger to Toronto, as six years ago he presided as chairman of the Section of Surgery of the British Medical Association. He left Toronto with more friends than ever.

The following comprised the programmes of the different Academy sections during October:

SECTION OF PEDIATRICS.

Thursday, October 3rd, in the Hospital for Sick Children.

I. Chairman's Address.

II. Clinical Cases: (*a*) Two Cases of Ichthyosis, Donald

McGillivray. (*b*) Selected Surgical Cases, C. B. Shuttleworth. (*c*) Two Cases of Mongolianism, G. F. Boyer.

III. Tuberculin: (*a*) Biological Basis of the Use of Tuberculin, A. H. Caulfeild. (*b*) Therapeutic Use of Tuberculin, G. W. Ross. R. D. Rudolf, Chairman; C. S. McVicar, Secretary

SECTION OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY.

Monday, October 7th.

I. Exhibition of Cases.
II. Chairman's Address.
III. Discussion of Cases.

SECTION OF MEDICINE.

Tuesday, October 8th.

I. Chairman's Address.

II. Recent Advances in the Diagnosis, Prognosis and Treatment of Heart Disease, illustrated by the Polygraph. Frederick W. Price, Lecturer on Diseases of the Heart at the Medical Graduates' College and Polyclinic, etc., etc., London. H. B. Anderson, Chairman; F. C. Harrison, Secretary.

SECTION OF SURGERY.

Tuesday, October 15th.

I. Chairman's Address.

II. Paralysis of the Arm, due to stab wounds, G. Ewart Wilson.

III. Imperforate Anus, Wallace A. Scott.

IV. Renal Calculus, W. W. Jones.

SECTION OF PATHOLOGY.

Tuesday, October 22nd.

I. Chairman's Address.

II. Autopsy Specimens.

III. The Newer Theories on the Pathology of Gout, and their Relation to Treatment, F. W. Rolph. J. B. Leathes, Chairman; N. T. Maclaurin, Secretary.

SECTION OF STATE MEDICINE.

Thursday, October 24th.

I. Chairman's Address.

II. The Accommodation for Communicable Diseases in Great Britain and the United States, R. E. Mills. Medical Health Office, Toronto. (By request.) W. L. T. Addison, Chairman.

The officers of the Academy for the current winter are as follows:

President, R. A. Reeve; Vice-President, Herbert J. Hamilton; Hon. Secretary, Harley Smith; Hon. Treasurer, W. A. Young; Past President, Newton A. Powell; Trustees, A. A. Macdonald, R. A. Reeve, N. A. Powell. W. L. T. Addison, W. H. B. Aikins, H. B. Anderson, George Bingham, Geoffrey Boyd, H. A. Bruce, Graham Chambers, J. H. Elliott, John Ferguson, Edmund E. King, J. B. Leathes, R. D. Rudolf, G. Silverthorn.

The stated meeting of the Academy for November takes place on the fifth, when an address will be delivered by the well-known English surgeon, Mr. Arbuthnot Lane, F.R.C.S., of London.

Selected Articles

GRENFELL, THE APOSTLE OF LABRADOR

One is apt to conceive of Dr. Grenfell as a big, powerful man, browned and hardened by a life of exposure on the bleak coast of Labrador. And so it comes as a shock to those who have never before seen the medical missionary, when a slight man of medium height, in evening clothes, sidles shyly across the stage, and stands with rather an embarrassed smile, bowing bashfully to the applause which greets his appearance. For a moment one doubts that this rather diffident gentleman is the world-famous philanthropist and physician, who has spent twenty years amid the perils and suffering of the Labrador coast, in order that he might make the conditions of life easier for the hardy fisher-folk whose home it is.

When Dr. Grenfell recently gave an illustrated lecture at Massey Hall, Toronto, he was on his way back to Newfoundland and Labrador after an extended trip through Western Canada and the Western States. But the sight of the wealth of the West, and the experience of the delightful climate of the Pacific Coast do not seem to have diminished the Doctor's love of Labrador and its people. In fact, it seems rather to have heightened his enjoyment of the stern beauty and bracing hardness of that bleak coast and bleaker climate.

At the same time he spoke with pleasure of the prosperity of a number of Labrador men who had gone to British Columbia and the Coast States to engage in the fishing industry. These men, experienced in the hard lore learned on the northern Atlantic, had proved themselves masters at their craft in western waters. Going out there with little or nothing, for one does not grow rich quickly in Labrador, they had soon acquired a start. And several of them had even become wealthy in a few years. In fact, two or three of them had given up fishing as not sufficiently productive of the root of evil, and had taken to such athletic and perilous avocations as selling town lots and running banks.

While recognizing the great natural advantages of British Columbia and the splendid opportunities it offered to the hardy sons of Labrador, Dr. Grenfell was by no means pessimistic as regards the future of the peninsula. The bleak hills of Labrador are of the same geologic formation as the mineral-bearing strata of Northern Ontario. There was, therefore, every reason to suppose that rich supplies of precious metal lay in the heart of Labrador waiting for the lucky prospector. And as it is only a matter of time till Labrador will be thoroughly gone over, there seems strong reason to believe that mining will one day be highly developed in Labrador, and will add greatly to the prosperity of its inhabitants.

The pulp industry is another which some of these days will take advantage of the fine water-powers and great forests of spruce in Labrador. Pulp-wood is becoming scarce and higher in price every year, and when the price goes so high that it will be worth while to work the forests of Labrador and put in expensive plants there, another great source of revenue will be added to the existing means of livelihood in that country. The fur trade and the fishing the people of Labrador have always with them. But the sealing has fallen off in recent years, owing to the criminal rapacity of the seal hunters and the deadly effect of repeating rifles and modern hunting equipment.

Among the improvements which Dr. Grenfell expects for Labrador is a railway opening up the interior of the country, and a short line to England. As it is, the traveller from England to Labrador or Labrador to England has to go a roundabout journey, which takes far longer than it should. And now that the great advantages and beauty of Labrador as a tourist resort are becoming better known, Dr. Grenfell hopes that these improved means of communication with the outside world will not long be delayed.

All this goes to show in a very striking manner how great is the advance which has been made in the fortunes of Labrador since 1892, when a young surgeon with the Deep Sea Mission first visited its coast, and was made aware of the terrible hardships suffered by the inhabitants in the absence of medical care of any kind. He saw people who had endured terrible agony for years, when their condition might have been easily improved, and even

restored to normal, in the beginning with a little attention from a doctor. He went into sod huts where people, who should have been strong and healthy and full of the joy of living in the most bracing climate in the world, lay dying miserably of tubercular affections. He saw about him everywhere the evidences of a complete ignorance of the simplest rules of hygiene, and as a result an appalling amount of misery which could in large measure be prevented. And this young doctor realized that here was his life-work.

"I went away," said Dr. Grenfell, "but I knew I would come back. I felt that it would be a mockery for me to pray to Christ to have mercy upon this people and to save them, and yet to be unwilling myself to work for them. True Christianity consists in really helping your neighbor as the Master Himself would have done. And so I went back."

Thus it was that a young English surgeon entered upon the career which has earned him the undying love and gratitude of the people he has served, and the enthusiastic admiration of the whole English-speaking world. People nowadays are engrossed more than they ought to be perhaps in the acquisition of money and in the selfish activities of life. But they know a hero when they see one. And they have universally recognized a good and great man in this quiet-mannered doctor who has come to be known as the "Apostle of the Labrador."

A great many people think of Dr. Grenfell as a clergyman—one of those missionaries who is given a training in bodily as well as spiritual therapeutics. But the "Dr." has no reference to a degree in divinity. Dr. Grenfell is a medical surgeon, and medicine is his only profession. But he is a profoundly religious man. If he were not, it is doubtful if he would ever have undertaken the work to which he has devoted his life. And having undertaken it, he was bound to become more and more conscious of the relations between pigmy man and the powers that rule the universe. He has lived amid stormy seas and bleak headlands and hardy, simple folk. Life has been stripped down to its bare essentials. And so he has become conscious of the Presence behind the veil in a manner seldom possible to those who live the crowded and hurried life of cities.

Dr. Grenfell is a religious man himself, and he has realized

the necessity of religion for others. And so he has devoted a great deal of his time and energy to religious work among his people. And the results would more than justify his efforts. The people of Labrador are honest and industrious and moral. They are a God-fearing race, who carry religious strictness even to the point of Puritanism. Short as is the fishing season, and important as is the catch and its effect on the prosperity and comfort of the whole year, they refuse to fish on Sundays. The boats stand idle in the harbors, and the fishermen pray, while schools of fish sport about within easy reach. This may seem rather unbusinesslike. But it is possible that Labrador fishermen consider there are more important things than business.

As a speaker Dr. Grenfell is very informal, but singularly attractive. He stands, like a shy schoolboy, with his hands behind his back, and his feet shuffling nervously about. And the boyishness of his attitude is emphasized by his round, smiling face, though the rebellious head of hair has become very grey indeed. His tone is pleasantly conversational, without a trace of self-consciousness, or of oratorical manerism. The rules of rhetoric would seem to bother Dr. Grenfell very little. He has something to tell about Labrador and its people, and the work that is being done there. So he tells it frankly and simply, as he would tell it to you personally if you were sitting alongside him before the fireplace. Dr. Grenfell doesn't lecture. He merely chats. And this is one reason perhaps why his audiences are nearly always numerous and enthusiastic.

A few biographical details about Dr. Grenfell may be of interest. His full name is Wilfred Thomason Grenfell; and he was born in 1865 at Parkgate, Cheshire, England. He received his education at Marlborough and Oxford, and his medical training at the London Hospital. After leaving Oxford, where he played for the University on the Rugby team, he became House Surgeon at the hospital under Sir Frederick Treves. In 1890 he accepted the position of Superintendent of the Mission to Deep Sea Fishermen, which was made a royal national institution by Queen Victoria. He fitted out the first hospital ship for the North Sea fisheries, and cruised with the fishermen from the Bay of Biscay to Iceland. He established houses for them on the land, and arranged mission vessels for them at sea.

In 1892 he sailed to Labrador, and shortly after took up the work with which his name has become identified for all time. It would be impossible in a paragraph to give even the list of the varied activities in which he has engaged there. Where everything had to be done from the beginning, he was obliged to become all things to all men—dentist, surgeon, preacher, builder, organizer of charity, organizer of co-operative stores, industrial promoter, sailor and engineer, while engaging in a thousand and one activities beside. When it is considered that on this barren coast, where prior to his coming there had been practically no provision made for the progress and well-being of the people, he has built four hospitals and an orphanage, acquired a little fleet of vessels, organized a chain of stores, and promoted a number of small industrial enterprises, provided teachers for schools, and also found time to gather funds for the work by means of lecture tours, one begins to realize not only the courage and superb devotion of Dr. Grenfell, but also his extraordinary activity and executive skill. Had he turned his tremendous energy into the ordinary channels of money-making he would have become in all probability one of the captains of industry and a man of millions.

"But there are better things in life than dollars," he said in his lecture, when speaking of the devoted men and women who had come to his assistance in Labrador, and who had carried the work to a success impossible for one man. These people work for practically nothing but the joy of the work and the consciousness of noble duty nobly performed. And it is this spirit which has made Dr. Grenfell one of the most interesting and most admirable personalities of our time. He has endured toil and hardship; he has again and again risked his life, and has spent a lifetime on a bleak, forbidding coast, which was described by Jacques Cartier as "the land that God gave Cain." He has given all he had, and he has made that greatest sacrifice of giving himself. And his reward has been very great. He has earned the love of his people and the admiration of the world; he has achieved a position of great power and influence founded on esteem, and he has won that inner peace which passeth all understanding, and which comes to those who have been faithful to high ideals.

Surely there are better things in life than dollars!—*Toronto Saturday Night.*

THE FUTURE OF MEDICINE

BY MAYNARD A. AUSTIN, M.D., ANDERSON, INDIANA.

It is probable that in no business or profession have there been more changes than in the practice of medicine. Empiricism and Chauvinism have given way to an era of broadmindedness that bespeaks for the future a time when the medical practitioner will be valued in the community at his true worth. The profession is being reorganized, and the process of elimination of the unfit is gradually working out its own salvation. Within the last decade it needed one of our great men to address the American Academy of Medicine in these words:

"The doctor's highest duty is to be honest and to fight for honesty in his profession and in the State. He should abhor cowardice in others, as in himself; for cowardice is the parent of dishonesty. The professional coward and the commercial coward have aided efficiently, if perchance unwittingly, the present degradation of the body politic and the body medical. Moral cowardice is a characteristic both of corporations and individuals in this twentieth century, and is the result of the worship of the 'almighty dollar,' which has usurped the place of 'self-respect' in men's minds. To those who may object to any criticism of my profession, my city, or my state, I reply that I know of no better way to remedy evils than to recognize their existence. An honest and just investigation of suspected corruption and an honest and brave avowal of discovered wrong are the first steps toward amelioration of evil. He who is afraid to see and dare not mention the misdoings of himself and his colleagues is his profession's worst son. He who cries out for concealment under the plea of loyalty is no better than the scheming political leader whose cowardice and insincerity call forth the reprobation of upright citizens. It needs no argument to prove that cowardice begets lying, and that a liar is essentially a coward. Reformation comes from honest introspection, which begets respect and honor from the outside world."

The work of the physician is peculiar in that it develops unconsciously an element of egotism that is the main cause of

his later corruption. His work is self-centred. He is usually the sole consultant, and he sees only those who believe in him and his ability. Their praise is unstinted, while the evil that may be said about him he seldom hears.

It is well for the profession, then, for the medical man to consider some of the many things pertaining to himself and his work; taking the individual as a unit and the possibilities that surround him as a whole. Concentration and co-operation in all lines of human endeavor are the aim and in many respects will be the ultimate attainment, in professional as well as in mercantile lines. America is too young as yet to suffer the consequence of an excess in the supply of labor. Unionism has gathered the few together and made them absolute in their demands.

THE ECONOMIC CONDITION OF THE DOCTOR.

Europe can furnish little to compare with that which we know as the American strike. The laborer in Europe who leaves his work because of a supposed or real grievance has his place filled too quickly for a discussion to arise, the excess being so much greater than the demand. In certain lines in this country there is a nearing point where supply and demand are well balanced, and where in a few others the supply will be greater than the demand. The profession of medicine is one of the latter.

The average income of the physician practising in the United States is said to be from $600 to $700. This means much to the prospective student who enters a field that can offer him on the average less than two dollars a day. A recent issue of *The Journal of the American Medical Association* records the fact that two hundred physicians have committed suicide in Chicago. An editorial in *The Lancet-Clinic* of June 12, 1909, dealing with the relations of the present economic conditions and the physician, speaks as follows:

"Physicians must realize that they, themselves, are not the active producers, no matter how unpalatable the truth seems; they are dependent almost solely upon the prosperity of their clientele; that, necessary and beneficent as is their work, they are but a part of the great economic machine and must exert

their immense influence for a readjustment of conditions upon a more just basis."

To the fact that the medical practitioner is not a producer must be added, however, the further fact that his work is second to none in economic importance in the conservation and expansion of those who are the greatest producers. The most perfect machine ever invented depends directly upon the care and attention of some machinist, to see that it is oiled and cleaned, to see that it has a sufficiency of raw material, and that the finished product is not permitted to choke its efforts. Malaria, typhoid fever, smallpox, and yellow-fever have, for centuries, made vast areas of the earth's surface unproductive or uninhabitable. Sanitary neglect has decimated more armies than all the battles in the world's history, but the physician and his sanitary knowledge have given back to the producer these heretofore waste places and reduced the mortality in civilized warfare fully fifty per cent. The men who are able to do these things are certainly as great, if not greater when they overcome the sources of pandemic desolation, than are the producers who merely take advantage of nature's opportunities.

Again, it must be considered that no men of any other class or other profession work for their own personal undoing when they serve their community best, like we physicians. To stay an epidemic is a direct financial loss to the medical practitioner.

The president of the British Medical Association, in his address last year, stated that his predecessor averaged for many years an income of $1,500 from his attendance on typhoid alone, but the income from this source had decreased so much in the past few years that it would not now average two per cent. of the former sum. We see what medical science is doing in Panama. We know what it did in Havana, we know what it is doing in the Philippines, and what it is beginning to do and what it will do in South Africa. The men who can make all these places habitable and change their desolation to a garden-spot are incomparably greater than "the man with the hoe." The practitioner of medicine in every State in this Union, in every county, and in every town, is teaching these lessons of sanitation, and as the lessons are well learned, his services are called for less frequently.

THE NEW SITUATION MUST BE MET.

The situation, then, that must be anticipated is the necessity of fewer doctors and a diminishing income, the latter made much less to the individual if it is divided among a large number. The so-called proprietary medical schools have become university institutions, not of their own free will and accord, but because they saw the handwriting on the wall and realized that professional prestige had passed the point where it alone could be made a source of income. The greatest surgeons in the world have no college affiliation, so also some of the greatest in all other lines of medical work. The organization of trades, the co-operation of labor, and the communization of interests have placed the hazard of sickness and accident where of necessity the wage-earner must protect himself. As unpalatable as the taste of contract practice is to most of us, it is a condition that has been arrived at from economic necessity. In Europe these problems have been gone over, and in spite of medical co-operation, medical organization, and every other means, the "krankenkassen" reign supreme and dictate to the profession the latter's terms of livelihood.

Directly, then, the physician must adjust himself to meet a diminished income, or rearrange his work on a more equitable basis, or charge according to the income of his clientele. Not from desire, but of necessity, America must follow in the footsteps of Europe in arriving at a solution of many economic problems.

A representative of *The London Express* writes as follows, after a study of the situation in England: "Medicine as a profession is certainly not attracting young men of brains and position as it once did The profession, for one thing, is sadly overcrowded, but good men are very much required. The modern youth seems to object to the long preliminary work and drudgery, and unless a young doctor is prepared to buy a share in a practice, or has exceptional skill and influence, he must be ready to work a long time before he can afford a motor car."

An editorial in another journal voices our distress in these words: "Oh, that we were back in the olden days—the days when doctors were not only doctors, but kings in their communities, too! Oh, that we were back in the good old times,

when medicine was untainted and pure and the devilish spirit of modern commercialism had not inoculated its rank and file! But I fear this is but a weak voice from the wilderness, and its cry will be drowned ere the multitude hears."

In France, in Germany, and in England (as also in this country) the medical associations and the number of prospective students have been directly lessened by higher qualifications. This alone is insufficient, and in England the expedient is being tried of sending out a special circular to all the public schools. This circular states the true economic conditions existing in the medical profession in Great Britain. It particularly calls attention to the limitation of the field of practice as disease becomes more preventable, and that the chances of being able to save even to the extent of the capital expended in education are, in a large proportion of cases, slight, while reasonable provision for old age, after family expenses are met, is difficult and often impossible. The circular dwells on the fact that it takes at least seven years and costs from $5,000 to $6,000 to secure a proper training.

AN EXAMINATION INTO CONTRACT PRACTICE.

Much has been said and written about club and lodge practice, yet it is something that not only must be endured, but must be viewed from the standpoint of economic necessity. This arrangement works a hardship on every physician, yet it enables persons in certain localities to secure medical attention, who might otherwise be neglected. It probably secures a minimum fee from others in the community who have been in the habit of contributing nothing whatever. The fees are unsatisfactory at their best, yet no community seems too small in which some club or lodge cannot find a physician whose services may be secured for little or nothing. The presence of that class of physicians who accept the little that is offered them ultimately lowers the general standard of fees and service, because it is the misfortune of the average physician to have no other income than from his profession.

In this country Dr. G. E. Holtzapple of Pennsylvania has made a most careful analysis of the situation, basing his deductions upon replies to letters sent to all parts of his State. From these letters 105 replies were received.

The results of his investigation show that in the 105 towns under consideration, 63,238 individuals, either members of fraternal orders or their families receive treatment at an average annual price of $2 a member. Estimating this on the basis of population, 3 per cent. of the inhabitants are receiving free medical treatment. As the population of the towns considered amounts to about one-third of the entire population, it is estimated that about 200,000 individuals in the State of Pennsylvania receive practically free medical treatment.

The reports show that the average amount paid is one dollar per annum for each member when only the member alone is entitled to treatment, and two dollars yearly per member when his entire family receive treatment. This would amount to a maximum of one dollar for each individual for twelve months' medical attention, equivalent to a little over eight cents a month, or about two cents a week.

In considering the personality of the physicians now engaged in contract practice, they may be put into three classes: Young men just beginning medical practice and accepting such positions as temporary expedients; men of all ages who have failed to establish well-paying practices; those well established and doing a lucrative business, but selfish and avaricious and desirous of securing all the money within reach.

The objections to contract practice are that it places the practice of medicine on a purely commercial basis, inhibits organization, prevents the physician from obtaining proper remuneration for his services, places a blight on medical progress and reduces the physician who engages in it to the position of a poorly paid promoter for the organization by which he is retained.

THE COMMERCIAL ASPECTS OF THE PROBLEM.

The organization of the medical profession or of any other line of effort where supply is greater than the demand cannot be sufficient to eliminate the undesirable features that must be acknowledged. Organization never has made, and never will, certain men better in their treatment of their fellow-men or prevent a man from making a better living if he has the opportunity, much less cause him to suffer from want if his needs can in any measure be satisfied. Unfortunately the medical profes-

sion contains many men of the latter class. Unfortunately higher qualifications for entrance into medical schools and all that may be demanded of prospective students of medicine cannot overcome the necessities of competition and the actualities of life that must be met when a student becomes a practitioner. If the church, an organization the oldest in the history of mankind, and the greatest in our knowledge of ethics, with all its opportunities and the wealth of money expended for religious purposes, can command the affiliation of but three per cent. of the world's population, what can the trivial efforts of other organizations ultimately show?

Didactics on morality, on duty and on all those things that medicine should stand for are able to reach but a limited number of the profession and never reaches those who could profit most.

Medicine as a science has advanced, as an art it has receded from the high place that our forefathers occupied. It has in many respects become a trade rather than a profession. It is estimated that a third of the graduates in medicine seek other lines within five years after their graduation.

PROFESSION VERSUS TRADE.

President Fraunce of Brown University has this to say in defining the difference between a trade and a profession:

"Trade is occupation for livelihood; profession is occupation for service to the world. Trade is occupation for joy in the result; profession is occupation for joy of the process. Trade is occupation where anybody may enter; profession is occupation where only those who are prepared may enter. Trade is occupation taken up temporarily, until something better offers; profession is occupation with which one is identified for life. Trade makes one the rival of every other trade; profession makes one the co-operator with all his colleagues. Trade knows only the ethics of success; profession is bound by lasting ties of sacred honor"

BERNARD SHAW ON THE PRESENT-DAY DOCTOR.

The Medico-Legal Society of London recently invited Mr. Bernard Shaw to open a discussion on a "Socialist criticism of the medical profession," and *The London Lancet* has devoted several pages in commenting upon Mr. Shaw's remarks.

Among the things said by him, Mr. Shaw declared that the doctors of the present day had been driven to the position of a private tradesman which caused them to lose most of the professional pretensions and delicacies. The doctor was forced by circumstances to go into commerce and sell cures because that was what the public demanded. The extent of the competition made the average doctor an abjectly poor man, and the mass of the medical profession had to get what they could and be glad of what they got. He mentioned the fact that the average patient needed not medicine nor operations, but better food, better clothing, better hygienic surroundings. Yet, what was the good of prescribing these things to that ever-increasing larger class of unfortunates who can scarcely keep soul and body together?

Shaw furthermore deplored the fact that the doctor was expected to do everything connected with his profession, while much that is demanded of him is more than his ability can furnish. Again, the most skilled in the profession have much of their time occupied with trivial matters. Continuing, he said:

"In order to get the maximum of hygienic influences and the greatest economy in using the skill of the profession, it will be necessary to get medical men organized, so that different grades can do different work, and that the mere routine will not be left to the best men to do. Such organization is altogether impossible where private practice is the rule. It could be done only if the profession were organized publicly by the State. A private practitioner could not get ahead of the prejudices of his patient, and one of the things from which the doctor ought to be released is that abject dependence upon his patient."

MEDICAL PRACTICE UNDER STATE CONTROL.

For the betterment of the community it is inevitable that many of the privileges of the individual be entirely under state control. As we now have compulsory education, so will the future show the necessity and bring about the universality of school inspection and compulsory correction of preventable deformities and defects of other parts of the body as well as the eye, and ear, and nose, and throat. As the state controls such

diseases as smallpox and yellow-fever, so will the community gradually extend its authority and ultimately make the sufferer from every infectious or contagious disease a ward of the state or municipality, until such time as the possibility of his spreading the disease shall be eliminated. Indeed, the possibilities of state control offer Utopian prospects to future generations, and with the elimination of the false modesty which has prevented the dissemination of proper knowledge of self and sex, we can almost dream of a time when man will be less a brute in his sexual relations, and thereby eliminate the problem of venereal infections.

Switzerland and New Zealand are dealing with these problems in advance of any other country, Switzerland having a number of cantons in which the physician is the paid servant of the municipality, each physician having a certain district and caring for all who need his services. For this service he receives a salary of from $1,200 to $2,000, and is retired on a pension when disabled during active practice, or after a certain number of years in service.

WE ARE APPROACHING THE GOAL.

That the situation is gradually making progress in this country is certain, as may be gleaned from this news item from *The Cincinnati Lancet-Clinic* of April 9, 1910:

"Efforts are being made by members of the Cleveland City Council to reorganize the ward-physician branch of the health department, by engaging ten district physicians who would be required to devote their entire attention to the demands of the office. At present twenty-seven ward physicians, receiving each $600 per annum, devote what time they deem proper to the needs of their indigent patients, as is the custom in Cincinnati, Chicago, and other large municipalities. It is argued that the present system of assigning a physician to each ward is unsatisfactory, because in some districts the residents do not require the services of a city doctor. The intention is to increase the pay of the ten men to be selected, insist on their relinquishing private practice, and to mark their offices in such a way as to render it easy for people to locate them."

In concluding his address mentioned above, Mr. Shaw said: "You must make up your minds that the inevitable result is

the socialization of the medical profession. As to what will happen when you have the doctor in the responsible, dignified, and independent position of a public servant, instead of a private tradesman; as to what will happen to the surviving private practitioner, I do not know. If a doctor finds himself in the position of depending on the caprice and ignorance of patients, he will always, if competent, under socialism, be able to get an independent position in the public service, and if he elects to continue in private practice, he will not be compelled to make the humiliating concessions and treacheries to science that he has now to do. Having the alternative of public service, he will be in as independent a position as if he were a public servant, and, on the other hand, the patient will always have a choice of getting public attendance; and so he, having the alternative, will be as well off with the private doctor as he will be with the public doctor."

The greatest clinic in America—or in the world, for that matter—has an organization on the plan suggested by Mr. Shaw. The success of the Mayos of Rochester, Minn., to whom I refer, is due in great part to the success of their organization. Patients first are classified, then the different physicians that must be consulted before the two famous surgeons themselves are seen eliminate the trivial routine that takes so much of the average doctor's time. This routine work is done by high-class men trained in special lines, thus rendering mistakes a minimum possibility.

Medical organizations by county, district or state have not controlled and will not control the evils that have arisen in practice. The greatest good these organizations do is the social opportunities given to men in advance lines of work.

The future possibilities of the profession depend upon two things—better work of the individual, and greater co-operation among the physicians themselves. *To overcome the demands of the lodge and club practice, a higher grade of work must be done than can be afforded by a club or lodge doctor. When equally as good work can be secured from the lodge doctor for* $2 *a year as can be secured from the average practitioner who might charge* $2 *a visit, it is obvious that the former method will be taken advantage of by the laity.*

ECONOMIC VALUE OF LIFE AND HEALTH.

The economic value of life is being taken into consideration by the states and the national Government as never before considered. School inspection, state hospitals, compulsory vaccination and quarantine, and the various laws enacted in behalf of hygienic measures foreshadow a near future when all matters of health and disease will be under state control. The necessity for better sanitation and health matters has brought into existence various health officers, district physicians, and health boards Patients suffering from certain diseases are placed in quarantine and given free medical and other necessary attention, because the municipality has found it cheaper to suppress an epidemic than to permit the public to support one. In some states the list of diseases subject to municipal control is an extensive one.

The economic values of health will one day be an asset, the possession of which will be required of every laborer by every corporation. It is possible for any manufacturer or corporation to demand a physical and moral standard from their employees. The expense of ascertaining the facts concerning the physical condition and moral habits of an applicant would be but a trifle as compared with the increase in the efficiency obtained in any line of effort from a higher grade of employees.

Already many corporations in the east, and notably the National Cash Register Company in the west, demand of all applicants that they pass a physical examination before being admitted to any department in the factory. The medical examination exacted by the latter concern is as complete as some insurance examinations, and includes a urinary analysis. The question of venereal disease is gone into thoroughly, and a moral standard is required of the prospective employe as a part of the recommendations as to character.

The work of the welfare secretary goes hand in hand with the work of the physician, and the gospel of fresh air, good food and clean living will remedy all the evils that are feared as the result of so-called race suicide. This latter, however, is but a name, for the condition it is supposed to describe is merely one of the stages of evolutionary progress in which quality supplants quantity.—*Am. Jour. of Clin. Med.*

News of the Month

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TORONTO THANKS SIR HECTOR CAMERON

On motion of Dr. Powell, seconded by Dr. Bruce, the following resolution was recently adopted by the Council of the Medical Department of the University of Toronto: "That the secretary be instructed to convey to Sir Hector C. Cameron an expression of the exceedingly high estimation entertained by this Council for his courtesy in crossing the Atlantic to deliver the opening lecture for the current year in the Faculty of Medicine. His selection of a subject as timely and as important as the influence of his teacher and life-long friend, Lord Lister, on modern surgery, and his masterly presentation of facts, perhaps better known to him than to any one else now living, has greatly increased the obligation under which he has placed us. We feel that in material, as well as in presentation, Sir Hector's address cannot be regarded as having been other than ideal."

MEDICAL PRACTICES FOR SALE

We wish again to remind our readers that at any time they desire to sell their medical practices that the Canadian Medical Exchange, 75 Yonge Street, Toronto, in charge of Dr. Hamill, Medical Broker, offers them every facility for so doing, with a maximum of speed and minimum of publicity. His methods are sure to commend themselves to anyone who takes the trouble to investigate, and he would be pleased to send to anybody interested many letters of recommendation from many physicians whose practices he has sold during the last sixteen years. Dr. Hamill informs us that this is about the best time of year to effect a speedy sale.

PERSONALS

Dr. J. H. Elliott has moved to No. 11 Spadina Road.

Dr. Geo. Elliott has moved from Beverley Street to No. 219 Spadina Road.

Dr. Adam Wright has resigned his position as Professor of Obstetrics at the University of Toronto.

Dr. R. A. Reeve entertained at dinner at the York Club the officers of the Academy, the guest of honor being Sir Hector C. Cameron.

The practice carried on heretofore by Drs. Oldright and Mackenzie, corner Carlton and Homewood Ave., Toronto, will be continued by Dr. Mackenzie. Dr. Oldright will in the future confine himself to consultation practice.

Dr. A. J. Willinsky, 189 College Street, wishes to announce to the medical profession that he has installed a complete and modern X-ray outfit, including Groedel's Orthodiagraph. He is now prepared to undertake any branch of radiology or electrotherapy.

The inaugural address of the twenty-sixth session of the Faculty of Medicine of the University of Toronto was delivered on Friday, October 4th, at 3 o'clock p.m., in Convocation Hall, by Sir Hector Clare Cameron, M.D., M.B., C.M., F.F.P.S., of Glasgow, Emeritus Professor of Clinical Surgery, University of Glasgow. This address appears in this issue.

Dr. Benjamin P. Watson, a noted Scottish physician, has been added to the staff of the University of Toronto as professor of gynecology and obstetrics. While he is only thirty-two years old, he has had a brilliant career. He graduated from the University of Edinburgh after winning signal honors as a student. He has the degree of M.D. with a gold medal from his alma mater, is a Fellow of the Royal College of Surgeons of Edinburgh. In addition, he has held important hospital appointments in that city. He was assistant to Sir Alexander

Simpson in obstetrics, and latterly has been assistant to Dr. Freeland Barbour in gynecology. He will begin his work in Toronto about November 1.

The governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley will give a fourteenth series of Clinical Lectures on Diseases of the Skin in the Out-Patient Hall of the Hospital on Wednesday afternoons, from October 30th to December 18th, 1912. The course will be free to the medical profession, on the presentation of their professional cards.

Obituary

DEATH OF DR. HOWIE OF ST. KITS

Dr. John Coulson Howie, a distinguished Glasgow physician, died at St. Catharines on October 3rd, aged forty-nine years. He had retired from active practice a few years ago and came to Canada with his family on account of his health, settling for the summer near Beamsville.

Dr. Howie was the eldest son of Rev. Robert Howie, D.D., Moderator of the General Assembly of the United Free Church, in succession to Rev. Principal Rainy, first Moderator of the United Church in Scotland. He was educated in Glasgow, and graduated from the university of that city.

He practised about fourteen years in Glasgow, and was for several years connected with the Samaritan Hospital for Women of that city. He was an elder in the church, and all his life an interested Young Men's Christian Association worker. He was a member of Langside Lodge, A. F. and A. M., Glasgow. He leaves a widow, two young sons and a daughter.

The Physician's Library

BOOK REVIEWS

Elements of Practical Medicine. By ALFRED H. CARTER, M.D., B.Sc., Fellow of the Royal College of Physicians, London, Professor of Medicine in the University of Birmingham, Consulting Physician to the Queen's Hospital, Birmingham, &c., &c. Tenth edition: H. K. Lewis, Publishers, Gower St., London.

This small work of 683 pages is designed by its author for the use of students as an introduction to the study of systematic medicine. It answers this purpose admirably; gives the reader in a few pages the essential features of the disease described, together with the differential diagnosis and an outline of the general plan of treatment. A useful feature is found in Appendix A, consisting of a number of suitable prescriptions grouped under the various headings, furnishing examples of correct prescription writing.

A second appendix is devoted to careful directions for the performance of the various laboratory tests required in diagnosis. W. B. T.

International Clinics, Vol. II. Twenty-second series, 1912. Edited by H. W. CATTELL. Philadelphia. J. B. Lippincott, Philadelphia and London.

The forceful arraignment by Baruch of text-book methods of treating "heat-stroke" is very timely and well put, while Abrams, of San Francisco differentiates spondylotherapy from osteopathy, and chiropractor practice and gives classes of cases suitable for its use. Dickinson gives a classification of headaches and "tender points."

Psychic hypertension treated by motor training, the use of

vaccines in streptococcic infections and the relation of polished rice to pellagra are discussed in an interesting way.

A syphilitic tumor of the liver, the underfeeding of infants and four interesting cases in neurology are presented

A series of papers by several authors on anesthesia is very concise and comprehensive, including the newer methods of local and spinal anesthesia, and the Roth-Drager apparatus, as well as post-anesthetic or delayed chloroform poisoning, are clearly outlined.

Killian's method of direct examination is described while surgical conditions of the kidney and puerperal infection are presented in the light of what is most recent. The volume closes with a paper on eugenics and an interesting paper by Ballantyne upon the National Insurance Act of the United Kingdom.

The volume is a very readable one and may be heartily commended to any interested in the above subjects. H. B. A.

Practical Medicine Series. Vol. IV. Gynecology, edited by E. C. Dudley, M.D., Chicago. The Year Book Publishers, Chicago. Price $1.25.

The volume of 1912, of some 225 pages, neatly bound, gives one a careful resume of the principal papers and monographs written on the subject of Gynecology during the year. The papers are impartially discussed, and the principal points excellently brought out. It is a splendid little volume for any one wishing to survey the field of gynecology activity.

A. C. H.

Essays on Genito-Urinary Subjects. By J. Bayard Clark, M.D., New York. Publishers: New York: William Wood & Company, 1912. Price, $1.25.

The author has put in book form a number of his essays and papers. The value of the cystoscope is well defended. Then the tubercular and gonococcic conditions are treated. The comparative values of the neutral germicides is decided, quite correctly in favor of the nitrates of silver, instead of the fancy silver preparations. The book concludes with an article on prostatectomy. However there is nothing startlingly new in the volume, but it is well printed and bound. A. C. H.

Practical Electro-Therapeutics and X-ray Therapy, With chapters on phototherapy, X-ray in eye surgery, X-ray in dentistry, and medico-legal aspect of the X-ray. By J. M. MARTIN, M.D., Professor of Electro-therapeutics and X-ray Methods in the Medical Department of Baylor University, in the Medical Department of Southwestern University, and in the State Dental College, Dallas, Tex.; Member of the Texas State Medical Association, American Medical Association, American Rontgen Ray Society, etc. Containing 219 illustrations. Pp. 446. St. Louis: C. V. Mosby Company, 1912.

This book represents an attempt to condense a large amount of information into a small space and the attempt is very successful. It should appeal to those who desire to know something about the various forms of apparatus employed in the treatment of disease by electricity and the methods used, but who have not the time to devote to works which enter more fully into details than is possible in a volume such as this, and who wish to avoid the technicalities encountered in other works dealing with the subect. C. R. D.

The Skiagraphy of the Accessory Nasal Sinuses. By A. LOGAN TURNER, M.D., F.R.C.S.E., F.R.S.E., Surgeon to the Ear and Throat Department, the Royal Infirmary, Edinburgh; Lecturer on Diseases of the Ear, Nose, and Throat, University of Edinburgh, and W. G. PORTER, M.B., B.Sc., F.R.C.S.E., Surgeon to the Eye, Ear and Throat Infirmary, Edinburgh. Edinburgh and London: Wm. Green & Sons, Publishers.

In the literature dealing with accessory sinus disease is found much that has resulted from the very great painstaking work of Logan Turner. Among the vast amount of reading available, one turns with confidence and pleasure to A. Logan Turner. This book taken as a sort of standard or a class to measure up to calls from the newer book a very high type of study. The first book was written before the X-rays. Many of the difficulties in relation to diagnosis and treatment in the first book are now solved by the intelligent use of the X-ray. Intelligent,

one uses the word guardedly, there is implied especially experienced use, and those can be gained by comparing the operative findings with both the clinical signs and skiagraphs. The author is not carried away in his enthusiasm with the value of skiagraphy, for on page 32 he replies in answer to a question as to whether the skiagram can always be regarded as a perfectly reliable aid in diagnosis: "We must reply in the negative, not only from our own experience, but from the evidence of others." Again, he says, "The skiagram may present an apparently normal shadow when disease exists in the frontal sinus or vice versa. Mention is made of the importance of the relationship of the ethmoidal cells to the outlet of the frontal sinus. A frontal bulla or a group of cells lying in the vertical part of the frontal bone might produce a shadow simulating disease of the sinus itself." Especially valuable is the skiagraph in studying cases of suspected ethmoidal disease. The importance of looking for the orbital extension of the ethmoid is emphasized. A series of plates is placed at the back of the book, which serve to bring out special points in the text. Some of these are very good, others will, no doubt, be improved upon by the printer in future editions. It is just a little awkward sometimes to find the particular picture you wish. The work is excellent, and the reviewer can say that since reading this book he has been able to see a skiagraph through different spectacles. It is a credit to British rhinology, and with this book as a type the profession will look forward to the appearing of a similar work on the temporal bone. P. G. G.

Fifth Scientific Report on the Investigations of the Imperial Cancer Research Fund. Under the Direction of the Royal College of Physicians of London and the Royal College of Surgeons of England. By Dr. E. F. Bashford, General Superintendent of Research and Director of the Laboratory. Published by the authority of the Executive Committee. London: Printed and published by Taylor & Francis, Red Lion Court, Fleet Street, E.C. 1912.

The present volume of ninety-four pages contains the reports of a number of special studies carried on in the labora-

tories of the fund, consisting of a number of papers dealing with experimental work in animals regarding the growth of cancer, more particularly the work done for the purpose of endeavoring to study conditions under which animals may be rendered immune to transplanted cancer. The report is very beautifully illustrated and is of undoubted scientific value.

A. P.

Text-Book of Microscopic Anatomy. By EDWARD ALBERT SCHAFER, LL.D., Sc.D., F.R.S., Professor of Physiology and Histology in the University of Edinburgh. With 1,001 engravings and 21 colored plates. London, New York, Bombay and Calcutta: Longmans, Green & Co., 39 Paternoster Row, London. 1912. Being Vol. 2, Part I., of "Quain's Elements of Anatomy," eleventh edition. Editors: Edward Albert Schafer, LL.D., Sc.D., M.D., F.R.S., Professor of Physiology and Histology in the University of Edinburgh; Johnson Symington, M.D., F.R.S., Professor of Anatomy in the Queen's University of Belfast; Thomas Hastie Bryce, M.A., M.D., Professor of Anatomy in the University of Glasgow. In four volumes. 1912. All rights reserved.

This extensive work of seven hundred and thirty-nine pages may be considered the standard text-book in English on the subject of Histology. Professor Schafer has greatly extended the material which appeared in former volumes of "Quain's Anatomy," and has added many fresh illustrations. It is not necessary to do more than state these facts in order to asssure the reader that in the book under review one has the best publication in English dealing with minute anatomy. It is indeed a beautiful book, containing excellent illustrations and clear and vivid descriptions of the histology of the various tissues found in the human body.

A. P.

REBMAN'S FORTHCOMING BOOKS.

Messrs. Rebman Company of New York beg to announce now ready: "Surgery of the Brain," Vol. II., by Fedor Krause, M.D., of Berlin: "Ophthalmology," Vol. II., by Roemer, M.D.; and the following two books on press: "Surgery of the

Brain and Spinal Cord," Vol. III., by Fedor Krause, M.D.; "The Diseases of the Oral Cavities," one volume, by Zinsser, M.D.; fifty-one colored illustrations (four color process) and twenty-two (one of which is colored) illustrations of the teeth, spirocheta and trepenomata.

Retinoscopy (or shadow test). By Jas. Thorington, A.M., M.D., Professor of Diseases of the Eye, in the Philadelphia Polyclinic, etc. 6th ed. 61 illustrations. Philadelphia: P. Blakiston's Son & Co., 1911. $1.00 net.

For the accurate determination of refraction, there is no method so accurate as Retinoscopy. Done with the plane mirror at one metre, as described by Thorington, the results are satisfactory. To those unfamiliar with Retinoscopy this little book of seventy odd pages will furnish all necessary details, but to learn to do retinoscopy one must do it, and not trust to any book. M.

Manual of the Diseases of the Eye, for Students and General Practitioners. By Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York, 1890-1903. New York: Wm. Wood & Co. $2.00 net.

It is scarcely necessary to say anything about this last edition of this favorite text-book. In what esteem it is held is shown by the fact that a new edition has been issued practically every year since its first appearance in 1900. In this edition one is struck with the excellence of the colored plates—22 in number—of ophthalmoscopic diseases and external diseases. New material, notably on salvarsan, tuberculin, etc., has been added, yet the book has been kept of its original size.

Le numéro du 2 mars 1912 de Paris Médical, publié par le professeur Gilbert à la librairie, J. B. Bailliere et fils, 19, rue Hautefeuille, à Paris, est entièrement consacré à la Dermatologie et à la Syphiligraphie:

La Dermatologie et la Syphiligraphie en 1912, par le Dr. G. Milian, médecin des hôpitaux de Paris—De la réaction de

Wassermann appliquée au traitment de la syphilis, par le Dr. E. Jeanselme, professeur agrégé à la Faculté de Médecine, par le Dr. Jeanselme, professeur agrégé à la Faculté de Médecine de Paris, et A. Vernes.—Le Pian et son spirochète, par le Dr. L. Nattan-Larrier.—Supersyphilisation, par le Dr. Marcel Pinard, chef de clinique à la Faculté de Médecine de Paris.—La culture du Spirochète pallida, par le Dr. Burnier.—Le traitement plurimercuriel intensif et son mode d'action, par les Drs. Jacquet et Debat.—Actualités Médicales.—Sociétés savantes.—*Diététique.—La vie médicale.—Chronique.—La médecine et l'histoire.—Variétés,* etc.—(Envoi franco de ce numéro de 84 pages in 4 avec figures contre 0 fr. 70 en timbres-poste, tous pays).

An International System of Ophthalmic Practice. Edited by Walter L. Pyle, A.M., M.D., Philadelphia. *Pathology and Bacteriology.* By E. Treacher Collins, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital and Ophthalmic Surgeon to the Charing Cross Hospital; and M. Stephen Mayon, F.R.C.S., Surgeon and Pathologist to the Central London Ophthalmic Hospital, etc., with three colored plates and 237 figures. Philadelphia: P. Blakiston's Son & Co., 1911. $4.00 net.

The pathology of the eye has not in the past been over elaborately treated of in English ophthalmological literature. True it is that we have the encyclopedic work of Parsons on the Pathology of the Eye, but the ordinary text-book, as to pathology, is noticeable chiefly for the want of it, so that one may say that this second volume of the International System fills a long felt want.

Treacher Collins, long known for his contributions to the pathology of the eye, unites in a very happy manner the practical with the theoretical. Mayon has devoted himself especially to the bacteriology of the eye.

The authors have treated the pathology of the eye from the standpoint of its life.

The life history, development, and eventual involution or degeneration of the eye forms the standpoint from which its pathology is discussed. Accordingly congenital developmental

defects, and then those affections commonly called new growths, but in reality returnings to embryonic characteristics, are first dealt with. The third chapter concerns derangements in the nutrition of the eye, that is to say, of the circulating fluids of the eye and of the vessels in which they are contained. Under this head are considered subjects at first sight so different as vascular sclerosis, thrombosis of the central vein, retinitis pigmentosa, albuminuric retinitis, intra-ocular hemorrhage, toxic-amblyopia, glaucoma. The next three chapters are devoted to injuries, inflammation and parasites, respectively. The degenerations of cornea, lens (cataract), retina, etc., occupy the last chapter, while the appendix is given up to a consideration of the practical methods of pathological examination of the eye.

A PALATABLE VEHICLE*

As physicians are probably aware, there are few vehicles for the administration of many medicines quite as palatable as those that are alkaline. An ideal vehicle is Grape Juice, especially a Grape Juice as carefully prepared as Smith's Grape Juice, bottled at Winona, Ontario. It is an undoubted fact that Grape Juice is a most valuable aid to the physician, not only in the warm weather, but throughout the entire year. Grape Juice is most refreshing, especially when served from the refrigerator, and is mildly stimulating in character. At this season of the year, when a great many people resort to the use of cod liver oil in the treatment of chest troubles, it should be remembered that olive oil *administered with Grape Juice* makes a very palatable and valuable therapeutic agent, in the proportion of two ounces of Grape Juice to one or two ounces of olive oil, taken immediately.

As a cooling drink in fever, owing to its slightly acid taste, Grape Juice is most beneficial. It is also a general tonic, materially aiding in the building up of the system during convalescence from typhoid fever, and, what is only too common at this season of the year, the severer forms of la grippe.

* Publisher's Department.

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Listerine is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils.

After the volatile constituents have evaporated, a film of boric acid remains evenly distributed upon the surfaces to which Listerine has been applied.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues ; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

In the treatment of summer complaints of infants and children, Listerine is extensively prescribed in doses of 10 drops to a teaspoonful.

In febrile conditions, nothing is comparable to Listerine as a mouth wash ; two or three drachms to four ounces of water.

"The Inhibitory Action of Listerine," 128 pages descriptive of the antiseptic, may be had upon application to the manufacturers,

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SOME VALUABLE PRODUCTS FOR THE TREATMENT OF DISEASES OF BACTERIAL ORIGIN

Since the advent of diphtheria antitoxin it is doubtful if any new remedial agent has elicited greater interest than is now being manifested in the bacterial derivatives known as Phylacogens. These products were originated by Dr. A. F. Schafer, of California, the method of preparation and technique of application being first presented to the San Joaquin Medical Society in Fresno. To the uninitiated it may be said that the term Phylacogen (pronounced phy-LAC-o-gen) means "phylaxin producer," being derived from two Greek words signifying "a guard" and "to produce." The Phylacogens are sterile aqueous solutions of metabolic substances generated by bacteria grown in artificial media. They are produced from a large variety of pathogenic bacteria, such as the several staphylococci, streptococcus pyogenes, bacillus pycocyaneus, diplococcus pneumoniæ, bacillus typhosus, bacillus coli communis, streptococcus rheumaticus, streptococcus erysipelatis, etc.

Four Phylacogens are now offered to the medical profession: Mixed Infection Phylacogen (used in the treatment of bacterial diseases of unknown etiology), Rheumatism Phylacogen, Erysipelas Phylacogen, and Gonorrhea Phylacogen. They have been thoroughly tested clinically and are said to be producing excellent results in the treatment of the various pathological conditions in which they are indicated. They are administered hypodermically, subcutaneously, or intravenously, preferably by the former method, the latter being advised only in cases in which a quick result is demanded. They are supplied in hermetically sealed glass vials of 10 Cc. capacity.

The Phylacogens are prepared and marketed by Parke, Davis & Co., who have recently issued a 24-page pamphlet which describes them in detail—the process of manufacture, therapeutic indications, dosage, methods of administration—everything, in fact, that needs to be known by the man who desires to use phylacogens. Every physician in general practice, every practitioner who desires to keep abreast of the latest advances in bacterial therapy, should have a copy of this valuable booklet. Write to Parke, Davis & Co., at their offices in Walkerville, Ont., ask for the "Phylacogen pamphlet," and mention this journal.

"ACADEMY OF MEDICINE" MILK

It is worthy of note that the proprietors of Price's Dairy, Toronto, were the first firm of milk dealers to receive permission to use the seal of The Academy of Medicine, Toronto. This means that the milk of this concern, as supplied to the Toronto public, was found to be fully up to the standard as laid down by the Academy of Medicine Milk Commission. This is certainly an endorsement of no mean order, and should satisfy the medical profession that milk as bottled by Erindale Farm (Price & Sons) is clean, rich, and free from the semblance of adulteration.

Right Food

supplies many a therapeutic lack, often missed in everyday practice.

For instance, as an adjunct to early treatment in cases of Habitual Constipation

Grape-Nuts

is of great value.

Physicians can determine this by prescribing it as a part of the diet (at least twice daily) during the more vigorous early treatment, and have the patient continue Grape-Nuts after medication ceases.

The result also proves the value of this food as a normal peristaltic and natural bowel antiseptic.

Careful and exhaustive clinical experiment has established this particular efficiency of Grape-Nuts beyond any question of doubt.

Grape-Nuts will not disturb the stomach, is most easily digested, and carries the full nourishing value of select Northern wheat and malted barley in quickly assimilable form.

The further fact that this food is procurable from any grocery at 15c. the package, makes it a convenient as well as a useful adjunct.

"There's a Reason"

The CLINICAL RECORD for Physician's bedside use sent prepaid, to any Physician or Nurse who has not already received one. Also a box of samples of Postum, Grape-Nuts and Post Toasties.

POSTUM CEREAL CO., LTD., BATTLE CREEK, MICH., U.S.A.

LIKE TRAGEDIES AT SEA

"INERT digitalis can be compared to a life preserver that will not float. The tragedies caused by the one in disasters at sea have been duplicated by the other in many a household."

So said a practitioner of wide repute who appreciated the situation as few really do.

We shall never know how many lives have been lost because of the failure of digitalis preparations to act, at the critical moment. The fluids dispensed to-day are variable in composition and uncertain in action—notoriously so. Two investigators found a wide variation in the strength of these preparations, stating that a difference of as much as 400 per cent. may be expected, at times, in different specimens of the drug.

"Several preparations, purchased at retail drug stores, have been examined at this laboratory; while some were more active than the pharmacopeial preparations, others were much less potent; some had no digitalis action on the heart; and one which had deteriorated badly was directly depressant to it, a result which, to say the least, would be disastrous to any one suffering from heart disease."

Even if they are right to begin with, fluids deteriorate rapidly. Recently, eight fluid extracts from eight different firms were assayed after a lapse of 22 months; one showed 33.3 per cent. deterioration and several 16 per cent.

It is plain from this that doctors cannot be too careful in the selection of their preparation. Personally, when we have occasion to use digitalis or to recommend it, we select Digipoten—which is a trituration in milk sugar, of the several active glucosides of the drug. It is active, that we know, and it remains active. It is supplied by The Abbott Alkaloidal Company both in tablet and powder form. Being soluble, it may be given in solution when desired.

SPINAL CORD TUMORS

THERE are still many questions presented by spinal cord tumors to be solved, says S. I. Schwab (*Interstate Medical Journal,* November), in a review of the recent literature on the subject. Flateau, who has had comparatively abundant opportunity for observing these cases, finds the operative mortality about 50 per cent., due to faulty technique, septicemia, and a group of causes little understood and probably due to operative traumatism. Much effort has been made to develop the differential diagnosis between intra and extra-medullary growths. Nonne concludes that a strong phaseone reaction and an absent lymphocytosis cannot be used to differentiate between these growths. The X-ray is of little value in the diagnosis of tumor of the cord. If, however, the spinal column is also involved by the growth, much help may be obtained. The territory embraced in the cauda equina, says Schwab, is still a region full of diagnostic pitfalls. Not only is localization here extremely difficult, but operation is accompanied by high mortality. Further study of these cases, especially the microscopic study of such cases as come to autopsy may add to our knowledge.

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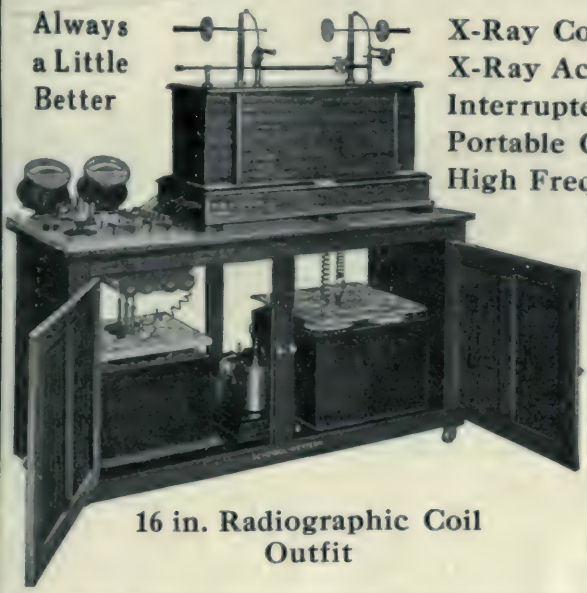

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THE TRIUMPH OF INORGANIC PHOSPHATES

The T. B. Wheeler M.D. Company, of Montreal, make the following announcement: "Over five years ago, The T. B. Wheeler, M.D. Company published in one of its brochures (a few copies of which still remain) its opinion founded on observation and experience, that the inorganic salts of iron and calcium were superior in every way to the organic—the so-called peptonates, albuminates, etc., and the glycero phosphates; that the laboratory of the human body could utilize, in the formation of lecithin, etc., the inorganic salts more easily, and with less loss of time, than the complex organic compounds. The latter it is obvious must be first split up in the body to be recombined, whereas the inorganic—the simple phosphates, for example—lend themselves instantly to combination by the physiological chemistry of the body.

"Physicians doubted, with the exception of a few who did their own thinking, and these endorsed our view.

"There will be no further doubt as to the correctness of our position, now that the *J. A. M. A.* has returned once more to the same view, which it states more emphatically than ever in its editorial article in the issue for April 20, 1912, page 1198, 'The Nutritive Value of Inorganic Phosphates.'

"Put your dyspeptic, anemic, neurasthenic patients; your expectant and nursing mothers; all 'demineralized' subjects; on Wheeler's Tissue Phosphates and note the speedy results. It is a scientific compound.

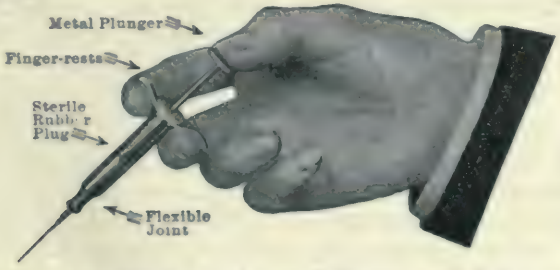
"We reiterate that no substitute, commercial or semi-official, will duplicate the results we claim for Tissue Phosphates."

NITROUS OXIDE IN ADENOID AND TONSIL OPERATION

C. A. Gundelach, St. Louis (*Interstate Medical Journal,* November), discusses the advantages of performing adenoid and tonsil operations under nitrous oxide anesthesia. Up to quite recently the great disadvantage in using this anesthesia in tonsil and adenoid work was the very short time of anesthesia after the anesthetic was stopped and the mask removed from the face. Since he has been using the Sluder guillotine method, however, Gundelach finds that it is possible to enucleate both tonsils and remove the adenoids in less than thirty seconds, before the patient has come from under the anesthetic. The writer uses the nitrous oxide without oxygen, and allows the patient to rebreathe the gas. He does not find it necessary to prolong the administration until marked cyanosis occurs, stopping as soon as there is loss of conjunctival reflex. Some of the advantages of this over other anesthetics in tonsil work are enumerated as follows: Its lack of disagreeable sensations to the patient; the fact that the cough reflex is maintained, a very desirable thing in operations about the pharynx; the lack of after effects; almost immediate recovery from the anesthetic; the lack of danger to the lungs, kidneys and heart.

The Mulford Biological Laboratories

All Mulford Antitoxins, Serums, Bacterins, Vaccines, Tuberculins, etc. are prepared under the personal direction of experts. Our Laboratories at Glenolden, Pa., U. S. A., are operated under Government license and inspection. Rigid standardization, with bacteriologic and physiologic tests insure uniform reliability.



Every dose of Antitoxin, Curative Serums and Bacterins is furnished in a perfected aseptic glass syringe, with flexible needle joint, positive working piston, finger-rests—ready for instant use.

The Ideal Antitoxin and Bacterin Container

Diphtheria Antitoxin—Concentrated
Furnished in aseptic glass syringes, containing 1000, 2000, 3000, 4000, 5000, 7500 and 10,000 units.

Tetanus Antitoxin
Furnished in aseptic glass syringes, containing 1500, 3000 and 5000 units.

Anti-Dysenteric Serum
For Summer Diarrhea and Dysentery.
In aseptic glass syringes, containing 10 c.c.

Anti-Meningitis Serum
(Anti-Meningococcic Serum)
In packages containing 2 aseptic glass syringes of 15 c.c. each, including special needle for intra-spinal injection.

Anti-Pneumococcic Serum
In packages containing 2 aseptic glass syringes of 10 c.c. each.

Anti-Streptococcic Serum
In aseptic glass syringes of 10 c.c. each, and in 20 c.c. packages (2 aseptic glass syringes of 10 c.c.)

H. K. Mulford Company, Philadelphia

New York	St. Louis	New Orleans	Minneapolis	Seattle
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AUTUMNAL AILMENTS

The autumn months constitute the season during which the average practising physician is called upon to treat the following conditions: 1. Typhoid Fever, which is, more often than not, contracted at some unhygienic summer resort. The patient may return home during the first week or so, with headache, malaise, etc., or the premonitory or primary symptoms may appear after reaching home. 2. Malarial Infection, in certain sections, which is more than usually rife in the spring and fall seasons. 3. The after results of the gastro-intestinal disorders of infants and young children, due to improper feeding, etc., during the heated term. In almost every instance, when the acute symptoms have subsided, a condition of anemia and general devitalization is the final result that constitutes the essential indication for treatment. In convalescence from all forms of illness resulting in general debility, Pepto-Mangan (Gude) is the one ideal tonic and reconstructive. It not only revitalizes the blood, but also tones up every physiologic function. It stimulates the appetite, improves the absorptive capacity, increases energy and ambition and restores the blood to its normal condition. It is, thus, a general tonic and reconstituent of marked and certain value.

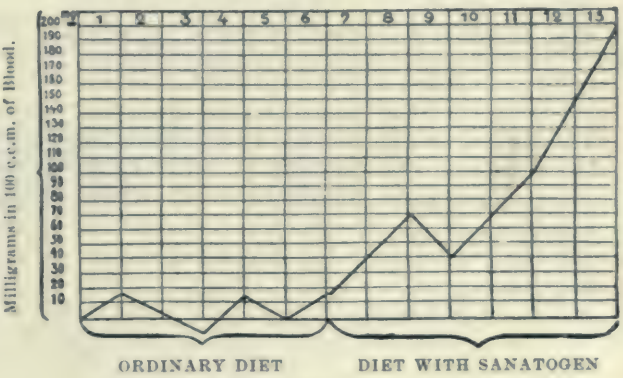
EPIDEMIC SORE THROAT

P. G. Heinemann, Chicago (*Journal A. M. A.*, August 31), makes a report of further investigations on the sore-throat epidemic in Chicago last winter, in addition to the results reported by Capps and Miller. The primary cause of the epidemic, he says, is as yet not altogether determined. It was traced to milk from one dairy. Of six hospitals using the milk two had many cases of septic sore throat. The other four did not. In four public institutions using the milk, ordinary sore throat was common, but septic cases were relatively rare. The hospitals and public institutions received the milk in cans and no infection of the milk could be traced. Families using milk in certain districts of Chicago suffered severely, while those in other districts did not suffer out of proportion. Since the apparent infectiousness of bottled milk from this dairy was intermittent, the solution must be looked for in the partial infection of the bottles, and there is some reason to suppose that an employee suffering from sore throat might have been the cause.

PHYSICIANS' CARS PAINTED AND UPHOLSTERED

The attention of the readers of this journal is called to page lxxii of this issue, where they will see the advertisement of The Toronto Auto Top & Body Co., Ltd., 126 Simcoe St., and Royce & Osler Avenues, Toronto. This firm make a specialty of the manufacture of auto tops and bodies, also trimming and painting of the same. They guarantee the best of work at the most reasonable prices, consistent with the quality of goods used. It will pay physicians to give them a call and an opportunity of quoting prices.

The Dietetic Value of Sanatogen



CAN the beneficial effects on nutrition noted by physicians during the administration of Sanatogen be in any way checked or measured? This question is answered by the above diagram, which shows graphically the average proteid content of the blood-serum in a series of test cases before and after the administration of Sanatogen. Details of the observations are contained in the *British Medical Journal*, Dec. 10th, 1904. The method adopted was that of estimation of the refractive index of the blood as now employed in cases of heart, kidney and blood diseases. As was to have been expected of physicians on the staff of the Royal University Clinic of Berlin, every source of fallacy was excluded with almost pedantic care. Control experiments were made on the patients concerned for many days before the special observations were begun. The treatment was intermitted to make certain that the results were due to the cause recorded. Cases even slightly questionable were excluded.

The normal proteid content being ascertained, *Sanatogen* was then given in amounts of 40 to 45 grms. daily, this preparation being selected because of its high proteid contents, its special organic phosphate and its proved ease in assimilation. An increase in the proteid content of the blood commenced almost at once, and, as indicated in the diagram, this progressed in a short time to a height never anticipated. Besides being absorbed itself, the Sanatogen appeared to stimulate the absorption of proteids in the ordinary diet. The observers who conducted these researches conclude that a diet containing large amounts of readily assimilable proteid, such as Sanatogen, will produce a marked increase in the proteid contents of the blood, and thus lead to a notable nutritive improvement.

Samples of Sanatogen and Literature sent free to members of the Nursing Profession on application to A. Wulfing & Co., 12 Chenies Street, London, W.C.

Sanatogen

MR. HAROLD B. SCOTT SUCCEEDS MR. J. C. BRADLEY AS MANAGER OF THE DENVER CHEMICAL CO. OF NEW YORK

The Denver Chemical Mfg. Co., manufacturers of Antiphlogistine, are to be congratulated on securing the services of Mr. Harold B. Scott as manager of the company, to succeed J. C. Bradley, who is retiring from that position.

Mr Scott is a bright, energetic young man, a graduate of Yale University with the degree of A.B. Upon his graduation from college he entered the commercial world where he has enjoyed a wide, varied and successful experience in developing one of the great industries of our country. He is peculiarly well fitted for the management of a proprietary house, and his connection with Antiphlogistine will doubtless lead The Denver Chemical Mfg. Co. to spell success with larger letters than ever before.

CORPUS LUTEUM EXTRACT

C. F. Burnam, Baltimore (*Journal A. M. A.*, August 31), after reviewing the function of the internal secretion of the ovaries and the use of the extract, gives his personal experience in experimenting with the extract of the corpus luteum of the pig. Besides the experiments with dogs, which accorded with those of other observers, he tells his experience with the use of the extract of human patients and concludes his paper with the following summary: "1. When given by the mouth corpus luteum tissue of the sow, even in large doses, has little or no toxic effect on women. 2. It affords us a valuable means of controlling the nervous symptoms which occur in so many patients at the time of the natural or artificial menopause, giving relief to most sufferers. 3. It is a valuable remedy in treating patients with insufficient internal ovarian secretion during the menstrual life. This class constitutes a very large number of women. 4. It is an excellent remedy to induce menstruation in young women suffering from functional amenorrhea. Those who are fat, in addition to regaining menstruation, usually, but not always, lose weight. 5. There would seem to be a possibility for the use of drug in cases of unexplained sterility and repeated abortions. 6. Extensive use should be made of corpora lutea from the cow, sheep and other animals to determine if these extracts work more successfully than those of the sow. The ideal luteum tissue for any animal is doubtless tissue from its own species, but this cannot be obtained for the woman. 7. So far as it goes, my work strengthens my conviction that Fraenkel is correct in attributing menstruation to the internal secretion of the corpus luteum. 8. From clinical experiences I am inclined to believe that the corpus luteum possesses different properties due to different chemicals. One of these substances causes hyperemia of the pelvic organs; another relieves nervous symptoms of a toxic character, as at the menopause. It would seem that this product acts as a neutralizer, since even large doses of the luteum cause no disturbance of a toxic nature. On the other hand, the toxic results of intravenous injections of the luteum extracts, as well as the nervous phenomena of menstruation, show that there must also be some toxic material present which is not absorbed from the stomach or intestines. All of these various substances may in the future be separated."

THREE VALUABLE QUALITIES
OF
BOVRIL

1. It possesses remarkable feeding power.
2. It enables the system to extract more nutriment from ordinary diet than without its use.
3. These two qualities give Bovril a body building power of from 10 to 20 times the amount of Bovril consumed.

See *"British Medical Journal,"* Sept. 16, 1911.

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IODEX presents FREE IODINE in its highest therapeutic activity.

IODEX is entirely free from Solvents, such as Alkaline Iodides, Alcohol or Glycerine.

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IODEX is indicated in:—
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LAXOL is the finest Castor Oil freed from nauseous taste and smell

LAXOL is not an emulsion or a diluted Castor Oil, but exhibits its therapeutic qualities unimpaired.

LAXOL is very pleasant to take and is entirely acceptable to the most fastidious. Children like it.

LAXOL does not gripe, and is valuable in Typhoid Fever, Diarrhoea Convulsions in Children, also Pregnancy and Childbirth. Dose same as Castor Oil. 3 oz. Bottles, 25 cents.

Samples and Literature sent on application.

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IMPAIRED DIGESTION OF INFANTS, PARTICULARLY BOTTLE-FED BABIES

BY F. H. MUNROE, M.D., NEWARK, N.J.

THE first few months of the baby's existence are fraught with much anxiety to both mother and physician.

The stomach, just beginning the functions for which it was created, is somewhat loth to accept the changed conditions; it frequently rebels at having to perform the act of digestion as it should, and rejects the food committed to its care.

Sometimes the cause of this rejection may be overfeeding, but much more frequently it is due to hyperacidity caused by fermentative changes in the food itself.

Particularly is this true of bottle-fed babies, and in the trials of food necessary to discover the one that best agrees with the baby, much time is lost and much worry is caused.

The very nature of artificially prepared foods predisposed to their rapid fermentation, and the progress of digestion is begun before the food leaves the laboratory.

Added to this condition is that of slight uncleanliness, which frequently exists in spite of the persistent use of boiling water in the bottle, tube and nipple.

Even a strong solution of borax or bi-carbonate of soda is not sufficient to thoroughly remove the particles of food, and prevent the excessive fermentation and its sequelæ, colic, vomiting and diarrhea.

The only rational method of treating this dreaded condition is to assist nature in her efforts to establish a normal process of digestion, and overcome the too active fermentation taking place in the stomach and intestines. Investigation has shown that these abnormal conditions may be readily overcome and normal conditions restored by the internal administration of Glyco-Thymoline in small doses, and its further use in cleansing the tube, bottle and nipple.

Ten drops of Glyco-Thymoline added to each two ounces of feeding will usually be sufficient to correct hyperacidity and prevent diarrhea, but larger dosage is necessary in cases where diarrhea has already set in.

CHRONIC HEART DISEASE

THE following are the conclusions of an article by C. L. Greene, St. Paul (*Journal A. M. A.*, August 31), on the prognosis in chronic heart disease as adversely affected by certain medical traditions. He reviews the recent progress in knowledge of the heart and enumerates the medical opinions which he thinks are to the disadvantage of successful treatment: "1. An early diagnosis of cardiac insufficiency is absolutely essential to the patient's welfare. 2. Such early diagnosis necessitates a change in the general attitude of medical men with relation to the valuation of subjective symptoms and the

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The Best Restoratives After Loss of Blood From Any Cause

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Each cube one cup.
"Ready in a minute."

2 cubes 5 cents.

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SOUP SQUARES
and
MIXED VEGETABLES

At your Grocers

determination of the symptomatic relationships of lesser cardiac dilations. 3. A large group of chronically diseased individuals, usually classed as neurasthenics, while usually free from serious organic heart disease, are peculiarly lacking in heart-muscle tonus and possess extremely dilatable, symptom-producing hearts as a part of their fundamental and usually congenital defects in general bodily structure and function. 4. So little basis now remains for the retention of the term "neurasthenia" as descriptive of a concrete disease, and such serious errors of omission result from its continued prominence in the field of chronic ailments, that it should be dropped from the literature of medicine or be given its true valuation under a proper terminology. 5. The term "perfect compensation" in heart disease is a misnomer, and the pathologic events in such cases make it evident that there is a constant, more or less gradual but progressive limitation of the field of cardiac response, and periods must inevitably occur from time to time, long before the onset of emergent or gross symptoms, when appropriate therapeutic measures will support and aid the embarrassed and laboring heart, relieve suffering and prolong life. 6. To make the symptoms of extreme cardiac exhaustion one's only justification for active therapy is both illogical and dangerous. 7. The recent studies of the causative agents and portals of infection in acute rheumatism, a better knowledge of the nature and means of detection of syphilitic infection and the introduction of new agencies and better methods for the intensive treatment of lues make both the avoidance and permanent cure of these conditions easier and indicate the possibility of greatly limiting the large group of myocardial and aortic lesions of which they are the causative factors. 8. Chronic diseases in general, and cardiac diseases in particular, are granted far less critical attention and direct control than is properly due them. 9. Chronic heart disease, though incurable, is wonderfully responsive to intelligent and properly-timed treatment, and always benefited by such proper supervision and control as is indicated in the individual case and obtainable only through early diagnosis, tactful disclosure and a well-balanced optimism."

THE TEST OF A TONIC

THE field and function of a systemic tonic is generally understood and appreciated by both physician and patient. To stimulate, whip or goad the vital processes is not to "tone," but, on the contrary, to ultimately depress. A real tonic is not a mere "pick-me-up," but some agent that adds genuine strength, force and vigor to the organism. The genuine tonic is a builder or reconstructor of both blood and tissue. Any agent which will increase the power of the blood to carry and distribute the life-giving oxygen is a tonic in the best and truest sense of the word. Iron in some form is an ideal tonic, as it builds up the vital red cells of the blood and the hemoglobin which is their essential oxygen-carrying element. Of all forms of iron, none is quite as generally acceptable and readily tolerable and assimilable as Pepto-Mangan (Gude). It creates appetite, tones up the absorbents, builds the blood, and thus is a real tonic and reconstructive of high order. It is especially desirable because of its freedom from irritant properties, and because it never causes a constipated habit.

"Expels without discomfort to the patient the poisonous toxins that form in the alimentary canal and is of particular value in the treatment of febrile conditions."

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ALLAYS COUGH AND PROMOTES FREE EXPECTORATION

INASMUCH as cough is the psychical as well as the physical tormentor of every person afflicted with pulmonary phthisis, and in view of the fact that if it is not repressed it unmercifully robs the patient of his vital force and deprives him of the rehabilitating influences of rest and sleep, the efforts of the physician ought to be directed towards its abatement.

The treatment being essentially a prolonged one, care must be taken to select a remedy which will afford the desired relief without begetting the drug habit, deranging the already sensitive stomach, or in any other manner adding to the patient's affliction.

Glyco-heroin (Smith) enjoys the preferment of a large proportion of the medical profession in the treatment of these cases. It immediately allays the cough, stimulates the respiration, reduces the fever, promotes the free and unlabored expectoration of the sputa, exercises an antiseptic and balsamic influence upon the breathing passages and induces healthful and refreshing sleep.

The delightful sedative action of the preparation causes it to be of unsurpassed value when the nervous system is involved, or where the cough is sufficiently persistent to disturb the sleep.

Glyco-heroin (Smith) is very extensively employed in institutions devoted to the treatment of pulmonary phthisis and in many of them it is made a routine practice to administer it, exclusively, for the suppression of cough.

THE MARVEL WHIRLING SPRAY SYRINGE AN IDEAL INSTRUMENT

THE Marvel Syringe was designed by scientific experts, working along practical anatomic lines, and, therefore, represents the perfection of means by which the entire vaginal canal can be quickly, easily and completely cleansed, without the employment of special posture, apparatus, etc., and with perfect ease, comfort and safety by the patient. It consists of a highly polished rubber vaginal tube five inches in length.

There is a whirling spray tip, which is easily removable for cleaning, so that a solid stream is impossible, the fluid is discharged in the form of a hollow, whirling spray, which distends the folds of the mucous membrane of the vaginal canal and allows the fluid to come in contact with its entire area. All discharges and secretions are quickly and entirely dissolved and removed.

The bulb has a capacity of 9 oz. of fluid, which is equally as efficacious as five times the amount of fluid used in the ordinary syringe.

Between the bulb and the vaginal tube is a soft rubber guard, which conforms closely to the vaginal orifice and plugs it securely, thus preventing the escape of fluid when the injection is given and ensures its entire withdrawal back into the bulb when the pressure is released. It is possible, therefore, to secure intra-vaginal pressure sufficient to distend the canal completely, without the employment of sufficient force to cause the fluid to enter the uterus.

Doctor!

You are aware of the fact, of course, that
PURE WATER IS A NECESSITY.

For the sake of your patients, permit us to suggest that, when ordering water whether it be for flushing the kidneys, stimulating a sluggish liver or eliminating waste matter from the system, you specify

McLaughlin's Hygeia Distilled Water

It is as pure as the sunbeam. It contains no germs, no fungi, no lime, no alkali, no salts. It is just pure water. Doctors will be interested to know that we have now identified with our firm Wm. P. Kaufmann, M.D., C.M., Tor., Univ., a fully qualified medical practitioner who has full charge of our laboratory—We also boast of the finest bottling plant on the continent so that everything (including our bottles) is strictly hygienic.

Please remember the name of our distilled water, **Hygeia.**

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Manufacturing Chemists
OTTAWA——TORONTO——EDMONTON

"the value of cold as a therapeutic agent in inflammatory conditions is slowly but surely reversing from a fact into a very doubtful theory. Dr. Cavana (*American Journal of Surgery*, October, 1912), demonstrates by careful analysis and logic that pathogenic micro-organisms multiply most rapidly in temperature from below 98.6° to freezing and 'that in a temperature of 100° Fahrenheit most of the laboratory cultures die, and that in a temperature of 103° all artificial germ propagation ceases.'

Taking a case of Pneumonia, Tonsillitis, Bronchitis, even Appendicitis, as Dr. Fauntleroy suggests, in fact any inflammatory involvement, it would seem justifiable and logical in the light of this reasoning that heat, best applied in the form of antiphlogistine, facilitates a cure by favoring leucocytosis and adding to nature's defense against suppuration. There can be no doubt that much of the success in treating inflammations, whether deep or superficial, with antiphlogistine which retains its thermic value for hours if applied thick and hot, has been due to this therapeutic function."

WYETH'S GRANULAR EFFERVESCING SALINATES

This preparation is a concentrated combination in granular effervescing form of the popular salines, magnesium sulphate, sodium sulphate and sodium phosphate. Each dessertspoonful represents one hundred and twenty grains of the combined salts.

Physicians will find this preparation an improvement over the popular European bitter laxative waters. It is palatable and acceptable to patients, being entirely free from the disagreeable bitter taste characteristic of saline laxatives. It is indicated in bilious attacks, acute constipation from any cause, in the chronic condition due to torpid liver and intestinal indigestion, catarrhal jaundice and in the various inflammations of the bowels and peritoneum; also as an uric acid eliminant. Having a stimulating effect on the liver, it improves the digestion, aiding the assimilation of food; and its refrigerant, purgative properties—expelling promptly objectionable toxins from the alimentary canal—make it particularly valuable in many febrile conditions.

For acute constipation or bilious attacks, a glass dosecapful should be administered before breakfast and repeated within two hours if necessary. For chronic constipation, torpid liver, catarrhal jaundice, a dose every morning and at bedtime until relieved.

GYNECOLOGIC DISEASE IN THE INSANE

First criticising the extravagant statements, especially by foreign authors, in regard to female disorders in the insane, F. J. Taussig, St. Louis (*Journal A. M. A.*, August 31), gives an analysis of a study of 537 women inmates, out of a total of 900, made by him as gynecologist to the St. Louis City Sanitarium during the past year. The violent patients and paretics were largely omitted, but the others were taken in regular order without selection. The patients could usually be easily quieted and care was taken to see that the measures employed did not aggravate their condition. Two hundred and fifty-two of the 537 were found to have some pelvic lesion that might cause symptoms. Minor abnormalities such as are usually found in every case were not included. In about one-fifth more than one lesion was found. There were no cases of malignant disease, but mild chronic inflammatory trouble was frequent; retroversions of the uterus were very common and still more so relation of the pelvic floor and abdominal wall. Taussig thinks that the prolonged confinement, together with the attendant constipation, might well be responsible for the latter condition. Usually a much larger percentage than the 47 per cent. here found is reported in such investigations. In three of the important groups—senile dementia, terminal dementia and paranoia—the percentage of pelvic trouble was only about one-third. In dementia præcox about one-half the women were diseased. About two-thirds of the imbeciles were so classed, and in the maniac-depressive group gynecologic lesions were found in as high as 74 per cent. As nearly as could be determined 141 of the 252 women required some form of gynecologic treatment. In operations on the insane he aimed as far as possible to save part

ERGOT, AND ITS PRICE IN THE MARKET

In 1910 Ergot was a short crop and prices were increased.

In 1911 the excessive drought reduced the Ergot crop to one half, and prices soared again.

This year the excessive rains washed a large part of the Ergot crop away and now prices are higher than they have been in twenty years.

During these three years of failure in crops and increasing prices, we have been able to secure a supply of prime Ergot so that the standard of

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is the best form in which Ergot can be administered.

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of the ovaries of each and at the same time resect a portion of the uterine end of the tubes, provided that consent of the relatives was obtained. This is largely on eugenic grounds. The results of the examinations and of the operative treatment are tabulated. He calls attention to three facts developed: " 1. The decidedly greater frequency of gynecologic disease in this form of insanity (manic-depressive insanity)—74 per cent. as compared with the average of 47 per cent. 2. The large proportion of chronic inflammatory conditions of the genital tract in this form of insanity. 3. The proportionately large percentage of mental recoveries after gynecologic operations done on women having this form of insanity. I conclude, therefore," he says, "that in manic-depressive insanity every patient should be subjected to a gynecologic examination and that when a definite lesion is found this should be corrected either by local or operative measures."

SALVARSAN IN PELLAGRA

W. J. Cranston, Milledgville, Ga. (*Journal A. M. A.*, May 18), says that the treatment of pellagra has demonstrated only the absolute futility of the drugs used; no alleged specific has justified itself, and treatment has been credited with too many spontaneous cures. At the Georgia State Sanitarium they have tried atoxyl, hexamethylenamin, calcium sulphid, and salvarsan. The cases treated with the latter drug are briefly reported. Of eleven patients two were apparently clinically cured, four have relapsed, one remains stationary, and four are dead. He says that some might explain the failure to get results by his not repeating the treatment every ten days, the cycle of the theoretical pellagra germ. He says this may be so, but the symptoms in his cases have not shown any prompt or spectacular abatement of symptoms. Perhaps a more thorough trial of salvarsan may bring out its value, but he is evidently dubious as to this.

ANEMIA AND TISSUE WASTE

Tissue waste, which is secondary to depletion of the system by interference with tissue repair, is often very persistent, for the reason that it is not accorded systematic treatment. The failure to correct anemia and tissue waste is a serious mistake. The practitioner's duties are by no means over when the acute disease has spent its force. In fact, the physician should regard it as a routine duty to institute such treatment, at the conclusion of an acute disease, as will look to the correction of anemia and the repair of depleted tissues. Such a course changes the results remarkably—and of course insures the patient against many subsequent untoward results which accrue from the lowering of the resisting powers of the economy.

In treating anemia and tissue waste Bovinine is of great value. This agent is a pure tissue food, and contains all the nutritive elements. It contains true animal iron, which is incomparably superior to any of the inorganic preparations that can be found.

It should be given in increasing dosage, and continued until there is no longer any clinical evidence of anemia, and until the former state of the tissues, as regards the matter of waste, has been restored.

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Interesting to Doctors

A palatable tonic, food and reconstructive.

Roboleine

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A scientific combination of Fresh Red Bone Marrow, Cream of Malt and the Hypophosphites.

Its beneficial effect is immediate in cases of Anæmia, Debility and wasting diseases generally.

Rapidly increases weight, producing firm flesh, strong bone and healthy blood.

Children Like It

Used in all the leading hospitals and sanatoria throughout the world.

Entirely Supersedes Cod Liver Oil.

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Collosols

Argentum or Hydrargyrum. (1 in 2000)

Kill pathogenic micro-organisms in a few minutes yet are harmless to human beings.

"No microbe is known that is not killed in laboratory experiments within six minutes."
British Medical Journal, March 2nd, 1912.

Used successfully in Gonorrhoea, Gonorrhoeal Conjunctivitis, Syphilis, Tonsillitis, Eczema, Rigg's Disease, etc.
'*Lancet*,' *Feb. 3rd, 1912.*

Given hypodermically, intravenously, by the mouth or applied topically.

NOTE — Collosols are non-irritant, non-toxic and are not precipitated by the blood when injected.

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ABORTION

The subject of abortion is taken up by R. McPherson, New York (*Journal A. M. A.*, August 31). He does not consider the various subdivisions that have been made, but includes all cases of interrupted pregnancy within the first twenty-eight weeks. The exciting causes are discussed in detail in an analysis of 3,500 cases, and he advises a thorough treatment of the emptied uterus, by curetting, douching, etc. The general conclusions of his study are given in the following: A. Abortions are more common than we realize and the sequelæ are frequently serious. B. After every prophylactic measure has been tried and the abortion which has threatened becomes inevitable, the following statements seem to have been proved by the foregoing analysis: 1. Rarely, if ever, is an abortion complete. Only in 13.7 per cent. of the cases analyzed was there the slightest reason to believe that the ovum was expelled unbroken. 2. All abortions should be investigated and the uterine cavity explored. 3. When this is done according to the outlined method we can show a mortality in all classes of cases of not more than 1.8 per cent. and in ordinary cases, exclusive of accidents and malignant complications, of not more than .016 per cent. 4. We can also show, which is perhaps most important of all, satisfactory results in 97 per cent. of all cases so treated.

PUERPERAL INFECTION

From a study of recent literature, and also from personal observation, T. J. Watkins, Chicago, (*Journal A. M. A.*, August 31), has been impressed with the difference of opinion that exists concerning the treatment of puerperal infection. His investigations, he says, indicate that local treatment is too prevalent and that systematic treatment would be advisable in most cases. He gives a large number of extracts from the literature and says that from personal observation, especially of general practitioners, he finds that most cases are treated by curettage, douches and intra-uterine medication. He gives his reasons for believing the disease a systemic one and thinks it should be treated chiefly by general remedies which strengthen the bodily resistance and hasten the development of immunizing bodies. Retained products of conception should be left to escape spontaneously. In individual instances gauze packing should be employed to check bleeding, to hasten separation of the tissues and to stimulate uterine contraction. Pelvic inflammatory exudates are usually absorbed, but in exceptional cases, usually due to the colon bacillus infection, incision and drainage should be employed. Cases of suppurative peritonitis should be operated on early, but the vigorous operative treatment employed frequently is more dangerous than the disease. He gives an analysis of eighty-nine cases, nearly all of the severe type which should be sent to the hospital, in which operative interference was discontinued with rare exceptions. The greater proportion had been curetted one or more times and had received intra-uterine antiseptic douches. Eight of the eighty-nine died, six were hopeless from general peritonitis, one had a large multilocular pelvic abscess from colon bacillus infection which terminated in generalized peritonitis and death; the eighth died from a hemolyzing

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Its value is based not alone on chemical qualities, but also on the possession of certain physical attributes, *e.g.*, palatability, solubility, ease of digestion and assimilation; qualities, moreover, which cannot be ignored in the discussion of dietetic values. It is also true that the record of our product as a nutriment, for almost thirty years, bears irrefutable testimony to the genuineness of its physiological worth, and its general excellence as a food product.

Samples free on application to

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streptococcus infection with numerous mycotic emboli. Local treatment was confined to the first half of these cases in point of time. Fifty of the patients received supportive treatment only and in the thirty-nine other cases treatment was only expectant. About 50 per cent. had had pelvic exudates and nearly all of these had received intra-uterine treatment before coming under Watkins' care. In all cases the exudate had practically disappeared when they left the hospital, where the average stay was only about three weeks.

STAPHYLOCOCCUS SPRAY IN DIPHTHERIA

After noticing previous reports on the method of overriding the throats of chronic diphtheria carriers with suspensions of *Staphylococcus aureus,* W. F. Lorenz, Mendota, Wis., and Mazyck P. Ravenel, Madison, Wis. (*Journal A. M. A.,* August 31), report their experience with this method in a troublesome outbreak of diphtheria. During this epidemic carriers were found and various strains of the staphylococcus were tried, other methods having failed. The personal equation was carefully eliminated and Dr. Ravenel and his assistants were not made acquainted as to the patients from whom the cultures were derived. In all seventeen patients were treated. Three were simply carriers, never having shown clinical symptoms, local or constitutional. These are referred to as Class 1. Six patients showed clinical symptoms and had all received the routine local antiseptics, but persisted as carriers long after convalescence was under way. These are referred to as Class 2. In eight cases the staphylococcus spray was used early in the course of the diphtheria and, except in one case, without other local treatment. The results in Class 1 were uniformly good. In two cases negative reports were received after six applications of the spray. Three months later one of these again became a carrier, but the reinfection was similarly cured. The third case did not clear up until other local methods were employed. All three cases were attendants on the isolation ward and constantly exposed. The six patients of the second class received antitoxin treatment during the disease, together with local applications, and in spite of these their throats showed bacilli long after they were well. The local antiseptic treatment was discarded and staphylococcus spray used. Four of the cases cleared up within a week. In two the results were not so good. These two are reported more fully and in each case there was supposed to be a hidden focus, in one of them in the tonsil. The use of staphylococcus spray early in the course of diphtheria, together with antitoxin, was tried in eight cases. In four of them negative cultures were obtained within one week; in three the results were fair, but after one negative finding a positive one was obtained, and the duration of suspicious or positive reports in these three cases was twenty, twenty-one and twenty-six days respectively. One case was mild, without any membrane and with only slight constitutional symptoms, but it was thirty-nine days before the case cleared up. The very mild symptoms that could be attributed to the spray itself indicate that it is a safe method. The authors conclude that pure cultures of *Staphylococcus aureus* sprayed into the throat and nasal cavity are effective in causing disappearance of diphtheria bacillus, at least in cases of Class 1.

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Editorials

THE PROOF OF TYPHOID MENINGITIS

Medical authorities agree that meningitis is a very rare complication of typhoid fever. Roberts, Osler, Anders are of one mind on this question. Flint, an author once much read and still of good repute, mentions meningitis as a possible complication of typhoid fever. It is admitted, therefore, that such a complication may exist; but no writer would have the hardihood to assert that, in a genuine case of typhoid fever, meningitis might dominate the clinical field, to the exclusion of the characteristic features of typhoid fever or, if a fatal issue were to ensue, that the post-mortem finding would be restricted merely to evidences of meningitis. There is, probably, not an organ in the human body—not even a tissue—that is not damaged in the dreadful riot of typhoid fever; but, if called upon to make the autopsy of a typhoid case, a physician would look for lesions in the abdomen rather than in the cranial cavity.

Whatever the nature of the onset of typhoid fever may be—in a very few cases suggestive of mania or perhaps meningitis, misinterpreted by the patient's friends in the ambulant form of the disease, rising by slow degrees to crisis or lysis in the great majority of cases—observers agree that, in the diagnosis of typhoid fever, the association of the four following symptoms is of cardinal importance: (a) the gradually ascending temperature; (b) the pulse frequency increased, but not in proportion to the temperature; (c) enlargement of the spleen; (d) the rose spots.

If a woman, of thirty-nine years of age, should die after an illness of sixteen days from a fever, which had been characterized by absence of a gradually ascending temperature, absence of splenic enlargement, absence of rose spots; if initial delirium, restlessness so incessant as to call for the use of the ice-cap, muscular twitching, refusal of food, so obstinate that the tube had to be constantly used, had been the marked features of her illness; if the rash which appeared over her limbs and chest consisted of brownish or yellowish spots resembling purpura rheumatica, what clinician could find in this picture the ear-marks of typhoid fever? Besides, if a partial autopsy revealed a normal peritoneum, absence of inflammation in or around the ileum, if the spleen was not enlarged, the liver and gall-bladder normal, the stomach and intestines normal, the presumption against typhoid fever would be vastly intensified. Now, the positive findings, got at the autopsy, were:

"Injected meningeal vessels and a considerable degree of meningeal inflammation, which was more prominent over the occipital lobes than over the parietal or frontal lobes." Post-mortem findings and clinical history exhibited a case of fatal meningitis, the origin of which was indefinite. But the bacteriologist of the Provincial Board of Health at Kingston solved the enigma; for, on the day of the patient's death, he sent in a report to the effect that a sample of her blood, which had been removed two days before death and afterwards tested by him, gave a positive Widal reaction—in other words, contending that the mysterious meningitis was only a complication and that the disease, which had proved fatal, had all along been typhoid fever.

Like other mortals we bow to the decision of the official bacteriologist; but there may have been a truer solution of the question submitted to him.

May not the patient have been unconsciously subjected, at some time in her career, to the influence of enteric poison, in a slight and merely immunising degree? See on this point, Douglas Powell L., II '08, 1125.

We cannot accept the suggested diagnosis (typhoid meningitis), which is offered by the practitioner who reports the case, in Bulletin of the Ontario Hospitals for the Insane, October, 1912, p. 50, because, in addition to the reasons mentioned above, he does not give proof that typhoid bacilli had been looked for and found in the meninges of the dead woman. J. J. C.

NATIONAL HEALTH LEGISLATION IN THE UNITED STATES

Through the courtesy of Mr. J. R. Mann, member of Congress, we have received copies of "An Act to change the name of the Public Health and Marine Hospital Service to the Public Health Service, to increase the pay of the officers of said service and for other purposes," which was approved August 14th, 1912. In reference to the change of title here referred to, it may be remarked that, prior to 1902, the above mentioned service had been designated the United States Marine Hospital Service. By an Act, approved July 1st, 1902, the United States Marine Hospital Service was designated the Public Health and Marine Hospital Service of the United States. Now, on the principle that the whole is greater than a part the Marine Hospital Service portion has been dropped and the title abbreviated to United States Public Health Service. This change, which is an obvious improvement, gave entire satisfaction to the House.

There is, however, to be no curtailment of the work of the Public Health Service under the new Act—nay, rather an increase. It includes the previous laws relating to quarantine, the eradication of epidemic diseases, the medical inspection of immigrants, the control of vaccines, antitoxins, etc., as well as the various investigations, provided for in bacteriology, pathology, chemistry, pharmacology, medical zoology, etc.

It is specially provided in the new Act, that "the Public Health Service may study and investigate the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage and the pollution, either directly or indirectly, of the navigable streams and lakes of the United States, and it may from time to time issue information in the form of publications for the use of the public."

The enforcement of the Pure Food Laws is not included in this Act: for various reasons, Mr. Mann, the author of the present Health Bill, and who also secured the passage of the Pure Food Bill in the House, deemed it wise to leave the enforcement of the provisions of the Pure Food Laws to the Department of Agriculture.

The Public Health Laws of the United States are to be administered by the commissioned medical officers of the Public Health Service. Beginning with the first day of October, 1912, the salaries of the commissioned medical officers of the Public Health Service shall be at the following rates per annum: Surgeon General, six thousand dollars; Assistant Surgeon General, four thousand dollars; Senior Surgeon, of which there shall be ten in number, on active duty, three thousand five hundred dollars; Surgeon, three thousand dollars; Past Assistant Surgeon, two thousand four hundred dollars; Assistant Surgeon, two thousand dollars; and the said officers, excepting the Surgeon General, shall receive an additional compensation of ten percentum of the annual salary as

above set forth for each five years service, but not to exceed in all forty per centum: Provided, that the total salary, including the longevity increase, shall not exceed the following rates: Assistant Surgeon General, five thousand dollars; Senior Surgeon, four thousand five hundred dollars; Surgeon, four thousand dollars. Provided, further, that there may be employed in the Public Health Service such help as may be provided for from time to time by Congress.

It is to be sincerely hoped, that the approval of the United States Public Health Act of 1912 may prove to be a source of inspiration and an incentive to Canadian statesmen, and that, as an outcome of this advance in public health legislation, a Canadian Public Health Service may be shortly established in this country. J. J. C.

BEER OR BUTTERMILK

We notice in a Toronto daily paper that the use of buttermilk, as a substitute drink, is said to have caused a falling off of 35,000 gallons in the consumption of beer in Chicago last year—say about 96 gallons a day for the whole year. Not a very extraordinary change indeed; but straws show the direction of the current. The change in beverages may be due to the fact, that a good many people in Chicago have found that buttermilk agrees with them, better than beer or any other kind of drink. Again, the growth of total abstinence may be partially respon-

sible for it; a man, when invited to drink with a friend, preferring to take buttermilk, rather than soda water or a cigar. This preference may also be accentuated by the generally accepted statement, that buttermilk has well-marked nutritive properties and that it agrees very well with dyspeptic stomachs. It may be, also, that the Chicagoan—clerk, artisan or laborer—is anxious to retain the good opinion of his employer and fears to expose himself to risks, arising from an indulgence in beer. The athletes, also, whose deeds are faithfully recorded in the press, have to be very careful in the selection of the fluids they swallow.

Sound beer has many excellent qualities. Its nutritive properties, due to the extractive matter, consisting principally of carbohydrates which it contains, are not inconsiderable, and observation testifies that beer, which is highly charged with extract, exerts a fattening influence. A light beer, well flavored with the hop, is calculated to promote digestion, the bitter principle rendering it a stomachic and tonic. All persons, however, cannot drink beer without experiencing inconvenience. With many it is apt to excite headache, heaviness and other sensations, which fall under the popular designation of "biliousness." Besides, it is one of the chief favoring influences of gout—a disease which is increasing in America. True, gout occurs among the upper class of society; but there is also a well defined form of "poor man's gout," due to an excessive use of beer.

The composition of buttermilk, according to Pavy, is:

Nitrogenous matter	4.1
Fatty matter	0.7
Lactine	6.4
Saline matter	0.8
Water	88.00
	100.00

Buttermilk is usually sour from lactic acid, while the proteids are more digestible than in ordinary milk, because existing in a flaky form.

There is another preparation sold under the name of buttermilk, which is produced by the artificial souring of skimmed milk, with the aid of appropriate ferments, chiefly those producing lactic acid. In either case—real buttermilk or artificially soured skimmed milk—the chief nutritive element is the casein or nitrogenous matter. During the normal digestion of whole milk or skimmed milk, it is the lab-ferment or rennet of the stomach that precipitates the casein, which consists of large, firm, not very soluble clots. In buttermilk, observed outside the body, the precipitation of the casein takes place under the influence of lactic acid, the casein being reduced to the form of small flakes, soft to the touch, glairy, easily dissolved in alkaline carbonates. Langart has shown, that even diluted to one-in-twenty, lactic acid dissolves the casein of both woman's and mare's milk. By analogy, it should do as much for the casein of cow's milk. Apart, therefore, from the 6.4% of lactine and a negligible quantity of fatty matter, buttermilk is a refreshing drink, which contains about 4.1%

of nitrogenous matter, flesh forming food, and, furthermore, this nitrogenous matter is easily digested, even in the stomachs of children; because, before consumption, it is already predigested by the solvent action of the contained lactic acid acting on the casein of the milk. J. J. C.

HOW INFANTILE PARALYSIS IS SPREAD

Of all the matters discussed at the recent International Congress on Hygiene at Washington, no one of these has more interest for those dwelling in this part of Canada, than that of poliomyelitis, more commonly known as infantile paralysis. The disease has been peculiarly prevalent in this part of Eastern Canada for some little time. The epidemic which occurred in Hamilton a year or more ago will be fresh in the memory of all. The symposium on poliomyelitis at the Congress referred to bore singularly productive results, that is to say, two discoveries as to its spread were announced. Professor Alfred Petterson of Stockholm, Sweden, has together with Professors Karl Kling and Wilhelm Wernstedt been conducting investigations since September in last year with regard to the manner in which the infection is transmitted. The investigations were carried on under favorable conditions so far as opportunities for a thorough study of the disease were concerned, for unfortunately Sweden has been visited by the most wide-spread and devastating epidemic of infantile

paralysis ever known. The report made by these medical men to the State Institute of Sweden embodies these investigations and their results, as announced by Professor Petterson at Washington, the discovery has been made that infantile paralysis is conveyed by means of secretions of the nose, in which the virus is contained. Professor M. J. Rosenau, at the same symposium, stated that he had discovered that the disease was conveyed by the bite of the stable fly. It would seem that Petterson's interpretation of the manner of spread is more likely to be correct, as it bears out Professor Simon Flexner's theory. It is believed that the result of the symposium at Washington will bring about a general acceptance of Petterson's views and in consequence that in the near future those suffering from the disease will be strictly isolated. W. A. Y.

VARSITY'S NEW "SHIP FROM AFAR"

Toronto University has very recently welcomed to its Professoriate a Scottish physician, Dr. Benjamin P. Watson, of Edinburgh. Although young in the arithmetic of years, Dr. Watson has worked and won for himself an honored position in the old land, and the prospect of an enviably brilliant future before him in the university life of this new land.

Graduating from Edinburgh with honors he holds the degree of M.D., and a gold medal from his Alma Mater, and is also a Fellow of the Royal College of

Surgeons of Edinburgh. He has had experience in important hospital appointments in that city. He was assistant to Sir Alexander Simpson in Obstetrics and latterly has been assistant to Dr. Freeland Barbour in Gynecology. He succeeds our revered Dr. J. F. W. Ross on the Medical Faculty of the University of Toronto.

It affords the editor and collaborators of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY more than a pleasure to welcome to its staff, in the Department of Gynecology and Obstetrics, Dr. Benjamin P. Watson. May he find in Canada not only a wide field of service as a teacher, but a joy in the free life of this country and an abiding home in the hearts of his students and confreres. W. A. Y.

OUR IDIOTS AND FEEBLE-MINDED

Canadians are awakening with the start of those having slept a little too long, and are getting very busy in studying and trying to solve some of the very grave problems that menace the health and well being of this country as a nation in the making, and turning the microscope of inspection closely upon the individuals who constitute its population—the Fit, the Unfit, and the Should-never-have-been-born. The latter were the *raison d'être* of a meeting held in the City Hall, Toronto, during the first week of November.

Delegates to the number of about one hundred

were present, welcomed by Mayor Hocken, and addressed by Controller McCarthy, Dr. Helen MacMurchy, Dr. George S. Strathy, Commissioner Starr of the Juvenile Court, Dr. C. J. Hodgetts, Hon. W. J. Hanna, Justice Latchford and Mrs. Torrington, President of the National Council of Women. Unfortunately, already the roll call of the Should-never-have-been-born in Ontario is not less than two thousand (idiots, imbeciles and feeble-minded inclusive). It is imperative indeed that they should be prevented from leaving any heirs behind them. The immigration laws should be enforced, not filed away and once in a while referred to in a casual way. The Unfit (married) Immigrants are coming in and always cheerfully ready to come, assisted by the Powers that Be in the Old Country. It seems little use to bail out with a bucket while the supply tap is running gaily at full pressure. The absurdity of the whole question, as it is now handled, is awful to think of.

In war the best and "fittest" are sacrificed, and the feeble-minded are left to flourish, a menace often to the lives of others, and an expense to the community, yet they are let live and permitted to reproduce. Those on hand should surely be segregated and rendered sterile. The asylum at Orillia is doing a splendid work in taking care of eight hundred of the most distressing cases.

Human misfits should have care and kindness, but be put away by themselves, and medical science must do for them what their own weak will power and general foolishness render them incapable of doing. Dr.

Strathy referred to a greater number of infants surviving owing to better hygienic conditions. Many of these feeble-minded children are born now in our hospitals and consequently seem to decide for themselves that they are really too comfortable to die.

If the people want this evil to stop it is not sentiment but common sense that must guide their deliberations, and they must see to it that the law of the land will rule that the unfit must not be allowed to add to their number by propagation. W. A. Y.

MEDICAL TRAINING IN VARIOUS COUNTRIES

Flexner's first report on the methods of medical training in vogue in the United States accomplished its object to some extent. It brought into the strong limelight of public opinion many existing abuses, and as a result a considerable number of worthless medical schools have gone out of existence, while other schools have been compelled to set their houses in order. His strictures on Canadian Schools were not quite so just and in his later report on European schools he has erred in many directions. For instance, in comparing the British to the German system of medical training, to the disadvantage of the former, he does not appear to have obtained his information at first hand. His description of British methods holds good for ten years ago, but not for the present time. Moreover, when he claims that the German method of teaching by means of Professors who do

nothing but teach and are without chemical experience are the best, he surely speaks without his book. No man is so well qualified to impart knowledge as he who is meeting with cases all the time, and besides such instruction must be of the most practical value. German teaching is the best theoretically, British teaching the best from the chemical standpoint. Flexner seems also to have overlooked the fact that scientific research is not neglected in Great Britain. Like most reformers the author of the report is too iconoclastic and does not discriminate closely enough. In order to render his argument sufficiently sweeping he is too apt to make general statements.

W. A. Y.

DUST IN CITIES

Everyone allows that dust is extremely unpleasant, but all are not agreed as to its harmfulness. There are those who hold that dust as a carrier of infectious germs is dangerous in a high degree, while others contend that dust viewed from this standpoint is almost a negligible quantity. The first to write on the menace of dust was Tyndall, who gave to the world a classic on the subject, and in America Prudden has written a fascinating little volume on dust and its dangers. However, it is now widely taught, and these teachings are seemingly founded upon results of experiments and experience, that few diseases, if any, are airborne, and that therefore dust can play but a very small part in the conveyance of

hurtful germs. At least, it appears to have been proved that dust is like sleeping dogs, only dangerous when disturbed. When dust is blown through the streets there is no evidence that it does not carry germs. Dr. Adam Wright read a paper at the recent meeting of the Canadian Public Health Association, in which he pointed out the unpleasantness and danger of dust, and Sir Thomas Oliver, at the International Congress on Hygiene, just over, demonstrated conclusively some of the dangers of dust. Although dust may not be the means of spreading infection to any great extent, at any rate, it acts as an irritant in affections of the respiration tract and must be harmful when swallowed in large quantities. All industrial cities are more or less dusty, and Toronto, perhaps, compares favorably in this respect with other cities, but Toronto is not so free from dust as is desirable and measures might be put into force which would control the evil more effectively than it is being controlled. It may be borne in mind that automobiles are potent factors in arousing dust and Toronto has more than her share of these vehicles.

W. A. Y.

Canadian Journal of Medicine and Surgery

Editor:

J. J. Cassidy, M.D.

45 Bloor St. E., Toronto

Managing Editor:

W. A. Young, M.D., L.R.C.P., Lond.

145 College St., Toronto

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Dermatology:

D. King Smith, M.B., Tor., Toronto; Demonstrator in Pathology, Toronto General Hospital.

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Original Contributions

CHRONIC INTESTINAL STASIS *

BY W. ARBUTHNOT LANE, M.S.,
Surgeon to Guy's Hospital, London.

Mr. President and Gentlemen,—I appreciate very much the honor you have done me in asking me to open this debate. I accepted the invitation very reluctantly, as I felt I had nothing particularly new to add and that my opinions on the subject had been already stated clearly on several occasions.

I undertook to do it, however, recognizing that while I would not detain you very long I would afford an opportunity to many who have been devoting much time and attention to this subject of expressing their views and experience. I trust that the subsequent discussion will throw much light on the causation, symptoms and treatment of chronic intestinal stasis and of the many diseases which result from it.

I employ the term "chronic intestinal stasis" to indicate such an abnormal delay in the passage of the intestinal contents through a portion or portions of the gastro-intestinal tract as results in the absorption into the circulation of a greater quantity of toxic or poisonous materials than can be treated effectually by the organs whose function it is to convert them into products as innocuous as possible to the tissues of the body.

When these poisons and their products of conversion exist in excess in the circulation they produce degenerative changes in every tissue and in every organ in the body. It is probable that the texture of those organs whose business it is to convert carry and eliminate them suffer more than do the other tissues of the body which are merely permeated by them. In proportion as the stasis is prolonged so under the influence of a progressive strain greater than they are able to bear these several organs undergo a degeneration which proceeds with

* Delivered before the Academy of Medicine, Toronto, November 5th, 1912.

increasing rapidity as the condition advances. What the organs are which convert and excrete these poisons, what share each takes in the process, and how any organ is affected in its physiology, is very difficult to define accurately, especially as far as the ductless glands are concerned. We believe that the liver is the most important converter of the poisons and that the kidneys and skin are the chief excretors of the products of conversion.

As to the part taken by the thyroid gland, the pituitary body and the suprarenals we possess little precise information.

Our observations in this direction are purely experimental, and if our several operations on the drainage scheme have done nothing more than demonstrate the damage done by these poisons, the remarkable power of repair which the several tissues of the body exhibit on being freed from their malign influence, and the extraordinary improvement in the functioning of the organs of the body after operation, they have been fully justified. They have, however, done more than this, since they have thrown a light upon intestinal conditions which has simplified their treatment most materially, and has put them upon a definite mechanical basis replacing what was previously little more than a nomenclature.

Let us consider the matter of pigmentation of the skin which becomes a very marked feature in advanced cases of stasis, especially in patients with dark hair. These cases have on many occasions been diagnosed as Addison's disease by very competent physicians, and I have no doubt would have gone to the post-mortem room as such except for operative interference.

On eliminating the supply of poison the color of the skin changes with a remarkable rapidity. The deep brown or coppery tint disappears and is replaced by the warm red color indicative of health. Has this unmistakable change come about by a restoration of the suprarenal to its normal condition or to what is it due?

Following almost immediately on the exclusion of the large bowel, the cold blue clammy hand is replaced by a nice warm pinkish dry one. Nothing can be more obvious than this change. Is this remarkably rapid alteration due to an improved cardiac condition alone or does the adrenal or the pituitary body

exert any influence upon it? It is not a matter of food, as the patient may be having nothing but normal saline. In the case of a young man with fingers that had been blue for some years, on asking him what was the first change he noticed within a

Fig A

day of the operation, he said, "My blue fingers have gone," and the blueness never recurred.

We know very little of the action of the ductless glands except from physiological experiment, and perhaps nothing in the operative treatment of chronic intestinal stasis strikes one as more disappointing than the helplessness of the physiologists to supply us with useful information that can be applied to our practice.

Again, in the case of the kidney affected by so-called Bright's disease, which is merely a product of chronic intestinal stasis, the exclusion of the large bowel is followed by an improvement in functioning which is as extraordinary as it is rapid, and a patient who has been face to face with death is quickly restored more or less completely to health, usefulness and activity.

The great difficulty in the treatment of chronic intestinal stasis and its results is to recognize when it is too late to interfere; in other words, when the end result has assumed such proportions that the removal of the primary cause does little or no good.

As an extreme instance, take cancer of the breast or of the ducts of the liver or of the pancreas, all products of chronic intestinal stasis in the first instance. What would be gained by eliminating the absorption of toxic material at this stage? In the antecedent phases, however, the hopeless conditions which form the last chapter in the story of chronic intestinal stasis may be readily avoided.

Take the breast while it is indurated and nobbly, as it is in marked chronic intestinal stasis, eliminate the supply of toxins, and a soft healthy organ results which need cause the patient no anxiety in the future.

As far as I know a healthy breast in a subject showing no evidence of stasis does not become cancerous.

Again, as regards the influence of these toxins or poisons on the nervous system, I have seen a patient who had been confined to bed for many months, having neither the capacity nor desire to stand or walk, and whose mental condition was such that she was regarded by many as an imbecile, become a happy, active, intelligent woman within a few weeks of the removal of the large bowel. Since that operation she has been leading a useful life and earning her living.

A woman was sent to me from South Africa in order that I might remove the Gasserian ganglion for epileptiform neuralgia of the right fifth nerve. She had suffered constant pain with exacerbations of great severity for about nine years. During the last two years her condition had become intolerable. She was definitely static and her nervous symptoms varied with her toxicity.

She was short-circuited. After the operation she had pain in the face, slowly diminishing for a week. On the eighth day it disappeared. She made a remarkable recovery interrupted only by a short slight attack at the end of the fifth week. Her general health and weight have improved rapidly, and a happy, smiling face has replaced an expression of hopeless misery.

In another patient, a man, headaches were intense and associated with vomiting. One of the most distinguished of our nerve physicians considered them to be due to a tumor in the frontal lobe and advised operation, which was, however, refused. The intense pain in the head disappeared abruptly after an ileo-colostomy.

These cases are caricatures or extreme conditions, but it is from the extreme conditions one learns most. The same or similar symptoms exist in a lesser degree in most advanced cases of stasis.

In the case of the thyroid I have seen a large adenoma of this organ subside with great rapidity after removal of the large bowel and typical symptoms of exophthalmic goitre of long standing associated with intestinal stasis have also rapidly and permanently disappeared in other cases.

Such, then, are the results of absorption from the alimentary tract. What is the source from which these poisonous products are obtained?

They may be absorbed from any portion of the gastro-intestinal tract as a primary absorption from the intestine. This supply may be supplemented by absorption of poisonous products from the secondary results of their absorption, such as from suppurating gums or from any secondary infective process communicating or not with the gastro-intestinal tract.

The absorption from the secondary result of autointoxication may in some cases be very considerable, and the removal of the absorption from the secondary focus may result in great improvement in the patient's condition, though the source of absorption from the intestine be uninfluenced by its treatment. The primary absorption from the intestine varies in importance not with the degree of stasis, but rather with the unfitness of that portion of the bowel to deal with organisms, etc., to which it is unaccustomed.

For instance, solid material may remain in the sigmoid flexure or pelvic colon for a considerable time and produce but a moderate amount of autointoxication. On the other hand, the infection of the contents subsequent on a very moderate stasis in the small intestine may bring about a very severe condition of autointoxication, while at the same time the mechanical symptoms resulting from it are also much more conspicuous.

I wish particularly to call your attention to the situation of the sites of the sources of excessive absorption of toxins from the gastro-intestinal tract. Since the profession has begun to study the subject of autointoxication in chronic intestinal stasis it has been inclined to assume that the large bowel is the sole

source from which these toxins are derived, and it has got into the habit of looking on stasis as merely colonic. In consequence of this operations have been conceived chiefly with the object of facilitating the effluent in the colon, and in this manner the chief site of absorption has been overlooked and left untreated.

This is largely due to Metchnikoff's views on the subject. He considers that if we had no large bowel we would live longer. This is perfectly true, as evidenced by the fact that the removal of the large bowel results in a marvellous improvement in the

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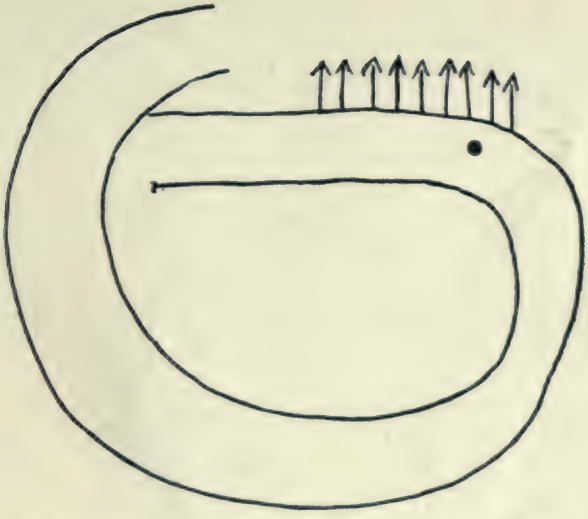

health and appearance of the individual and in the duration of life. But I would point out that the benefit which results from the removal of the large bowel does not show that the colon is the chief source from which toxins are absorbed in excess.

Indeed, in a considerable proportion of cases I believe the bulk of the absorption takes place from the small intestine.

Stasis of the small intestine with the associated infection of its contents by organisms to which it is unaccustomed is not primary but is secondary to a stasis in the large bowel.

In other words, if it were not for the presence of the large bowel the conditions producing stasis in the small intestine would not arise. If the caecum did not become overloaded the obstruction to the ileal effluent, either by an acquired mesentery, an appendix hitching it up, or by simple stasis would not develop. Consequently the contents of the small intestine would not become infected by organisms, the duodenum would not be blocked by the drag of the small intestines obstructed at the end of the ileum, the mucous membrane of the duodenum would not inflame and ulcerate, the biliary and pancreatic ducts would not be infected and the obstructed outflow from the stomach, with all its associated sequelæ, would not occur.

Now I wish to show that the extraordinary improvement that results from short-circuiting and the disconnection or removal of the large bowel is due largely to the fact that the evacuation of the small intestine is facilitated by its introduction into the pelvic colon, and that the infection of its contents by organisms which grow in the stagnating material in the large intestine ceases abruptly. I do not wish to suggest that all absorption of toxins takes place from the stomach and small intestine, but I do maintain that the tract other than the colon plays a very important part, and I believe by far the most important part in the process of absorption. It appears to me that the point of greatest difficulty in the passage of material along the gastro-intestinal tract is through the last few inches of the ileum. This is particularly the case when the caecum has been securely fixed by acquired adhesions in the iliac fossa. In such cases the delay of the effluent at the pelvic brim may be very great; indeed, in one of my cases which Dr. Jordan has examined with bismuth and the X-rays, the material remained in the terminal coil of the ileum for as long as eighty-five hours* without there being found at the operation any evidence of interference with the effluent by an acquired peritoneal band or by an appendix fixed in such a position behind the small bowel

* Radiography in Intestinal Stasis," by A. C. Jordan, M.D. Proceedings Royal Society of Medicine, 1911, Vol. V., page 20, fig: 14.

as to control the passage of material through it in certain positions. Now this form of simple obstruction, which cannot be recognized at the time of the operation, and can only be determined by bismuth and X-rays, I call the "simple static variety." I use this term as opposed to the more obvious variety in which the bowel is controlled by an acquired band or by an appendix, either of which is readily recognized when the abdomen is opened, though the extent of its effect on the effluent can only be gauged by bismuth and X-rays.

Since with an apparently uncontrolled ileal termination the delay in the effluent may be very considerable, one can readily see how a structure which by strain or pressure exerts apparently but a comparatively slight constricting influence on the lumen of the bowel may affect very materially the passage of material through it.

In early life the duodenum ends vertically in such a manner that its effluent can be controlled by the exercise of a vertical downward traction upon the jejunum. I believe that to obviate this mechanical disability the commencement of the jejunum becomes attached progressively to the posterior abdominal wall by an evolutionary process, so that, in the highest state of development, having become attached to the under surface of the transverse meso-colon in a direction from left to right this portion of bowel is fixed in the form of a semi-circle.

Between the normal condition at birth and this high evolutionary type all grades are found, each presenting a varying degree of disability. I have indicated diagrammatically in Fig A what I believe to be the normal condition at birth; in Fig. B the condition commonly present in advanced duodenal obstruction in chronic intestinal stasis. The arrows indicate the acquired ligament, which represents the crystallization of lines of force, which is frequently present and which is evolved to take strain off the termination of the fixed bowel; and in Fig. C the fully developed fixation of the jejunum to the under surface of the transverse meso-colon. The arrows in this diagram indicate the acquired mesenteric bands which are evolved to fix the bowel in this situation in order to obviate angulation at its termination and consequent interference with the effluent. The advantageous mechanical arrangement afforded by

this last type may be imitated by suturing the jejunum to the under surface of the transverse meso-colon after the division of any such bands as are shown in Fig. B, should they exist. It would seem impossible to eradicate from some minds the idea that these acquired bands and mesenteries are inflammatory in origin.

I do not propose to discuss here the details of the several operative procedures which I employ, as I have done so on very many occasions.

We may differ widely in our opinions as to the causation of the several conditions which produce mechanical changes in the intestine, as to the mode of absorption of poisonous products and as to the best modes of treating the several troubles as they arise, but I trust that the discussion, which I feel sure will be a very full one, will help us to materialize our views on a subject which I believe to be one of the biggest and most important which we have handled recently.

CHAIRMAN'S ADDRESS TO THE MEDICAL SECTION OF THE ACADEMY OF MEDICINE, TORONTO

BY H. B. ANDERSON, M.D.

Gentlemen,—On entering upon the duties of Chairman of the Section of Medicine for the ensuing year, I wish to thank you for the honor conferred on me, and at the same time express my deep appreciation of the responsibilities attached to the position. I can only assure you of my best efforts to maintain the high standard set by my predecessors in the office. In the pursuance of my duties may I ask you for the same active support and sympathy which the members have always given their officers during the few years since the inauguration of the Academy, and may we trust that our meetings shall continue to be not alone a source of instruction, but of pleasure and inspiration as well. Bearing in mind that our membership is largely made up of men engaged in clinical work or busied in general practice, we shall endeavor to make the programmes of as much practical value as possible. To this end, the presentation of patients and specimens, clinical reports of interesting cases, prepared in detail but presented in abstract, and clinical demonstrations, will be given precedence over papers dealing with the more formal discussions of disease. It is especially to be desired that the younger members shall contribute more to our programmes and take a more active part in our proceedings. While often deterred by a commendable modesty from broad generalizations and sweeping opinions, yet there is no member too young or inexperienced to present a well-prepared case or the results of a clinical or laboratory investigation. In fact in many instances, their more recent training, particularly in laboratory technique, should especially qualify them to demonstrate the value of newer methods to clinical work, and any contributions in this direction are assured of not only a sympathetic reception but of a hearty interest on the part of the older members. In most other medical centres much of the best work is brought forward by men during their first ten years after graduation, when minds are yet plastic

and open to new ideas and impressions, before the tooth of Time has gnawed into energy and enthusiasm or unwise repression has blighted hope.

I would therefore, urge the younger members to avoid the atrophy resulting from disuse—the *clinical marasmus* of Osler —and make the most of opportunities offered by a leisure denied the man who has become overbusy in practice or other professional pursuit.

There is another class of our membership less in evidence on our programmes than their opportunities and the wealth of material coming under their observation warrants. I refer to the men doing general practices. It is they who most often see disease at its initiation, who have the best opportunity of following the changing processes of its evolution, and to study its sequelæ and final issue. The consultant often sees the case but once, and then when it has fully developed, and frequently his office is to offer a sort of benediction before dissolution. The hospitals contain mostly cases in their advanced stages, or the wrecks of disease, and patients, especially chronics, are of necessity not sufficiently long under observation to enable one to study ultimate results. The practitioner, following his cases for many years, is therefore the one best situated to fill in the blanks, and by so doing he can contribute much not otherwise to be obtained. For no one will deny that there is something of real value in a ripened *experience* of disease, something acquired by years of close observation and frequent contact, which can be neither weighed nor measured by any of our methods or instruments of precision.

In this connection may I be permitted to express the opinion that much injury to societies such as this and to our profession as a whole results from false notions attached to that much-abused expression—medical research. There are those whose ideas have become so awry that they can conceive nothing of value unless it is something abstruse, exceedingly rare, or at least very new. Such individuals appear to seek a store of knowledge which is little more than a museum of medical curiosities and novelties, from which that which is commonplace and useful is rigidly excluded. Fortunately, this attitude no longer characterizes the leaders of scientific medicine.

Far be it from me to speak disparagingly or to minimize the importance of original investigation, but one should remember that the best foundation for such work is a wide and accurate grasp of what is already known. The training of the senses for close observation, the acquirement of technical skill, the ability to correlate facts and draw warranted conclusions—in short, the mental and manual requirements for the solution of *new* problems, may all be obtained by a proper study of the common diseases, not to mention the field they offer for deeper study by newer scientific methods.

Before we are ready to lead in the advance, it is necessary that we first come abreast with the march of progress, and in these days of so great activity in the various branches of the science and art of medicine the attempt to keep in touch is by no means easy. I wish to emphasize this point, because I believe the most useful function of a society such as this consists in the opportunities it presents for mutual assistance and co-operation in obtaining the best grasp of the knowledge and data already established with regard to the diseases we encounter in our daily routine. It would be fortunate if, with such knowledge, we are enabled to reasonably exemplify the best that our art permits, and from such vantage-ground we shall see most clearly the road ahead. One cannot more forcibly impress the point I wish to make than by instancing the kind of work accomplished by that distinguished practitioner, Dr. James MacKenzie, and his co-workers, which has revolutionized our ideas of cardiac pathology and treatment, and is regarded the world over as one of the most brilliant contributions to medical science which has come from a country long noted for medical sanity and sound clinical practice. We are fortunate and happy in having with us to-night one of Dr. MacKenzie's distinguished colleagues in the person of Dr. F. W. Price.

An astute Canadian politician once said, "Elections are not won by prayers," neither is original investigation carried out by brilliant conversation. The *means* must precede the *end*: the underlying conditions are necessary for *results* in all the activities of life. Good libraries, hospitals well organized, equipped and supported, with laboratories sufficiently manned as to staff and servants, and a proper co-ordination of depart-

ments for mutual assistance, are essentials without which the most competent and best directed individual effort can accomplish little. Happily Toronto has been rapidly developing along these lines, opening up opportunities which should make the future full of promise.

At perhaps no time in the history of medicine the world over has there been so great activity and accompanying unrest. The period is one of rapid evolution and readjustment involving all phases of our work. The field of public health, the scope and character of the teaching in universities and hospitals, the relation of laboratories to clinical teaching and practice, the respective fields of the specialist, the consultant and the practitioner, the place of the latter as clinical teachers, are all topics of lively interest and controversy. In this connection one may refer to the two exhaustive reports recently published by the Carnegie Foundation dealing with medical education on this continent and in Europe, and involving questions of the most vital importance to the future of our profession. The comparative data thus made readily accessible are of the greatest value and merit the careful attention of everyone who wishes to keep in touch with a movement pregnant with possibilities almost revolutionary in character. Mr. Henry S. Pritchett and Mr. Abram Flexner, with commendable courage, sincerity and fairness, have presented in these reports an array of facts which must justify to unbiased minds many of the conclusions arrived at, and prepare us, not alone to accept but to assist in the promotion of reforms which will inevitably follow, and the effects of which must reach the farthest limits of our whole profession. It is a significant fact, however, that neither Mr. Pritchett nor Mr. Flexner is a medical graduate, and that they approach the subject from an educational rather than a professional standpoint. This position undoubtedly has much to commend it, but involves at the same time some elements of danger. I am not prepared to believe that men without a knowledge of medicine or clinical training are qualified to say the last word with regard to the best means of instruction of medical students, especially in the clinical branches. To do so would be to accept the proposition that the best expert opinion can be obtained from those without a practical knowledge of

the question with which they are dealing. While favoring in a general way the German system of instruction, and especially German organization, they are careful to point out certain inherent disadvantages as contrasted with the systems in vogue in Great Britain and France. The conclusion appears warranted that each country does best to show some individuality, and while adopting what is most valuable from others, develop a system of its own in keeping with the character of its people and suited to their present requirements and their stage of educational and national development. What to my mind are two of the most admirable features of the German system are not especially referred to. The one is the spirit of perfect academic freedom—the "Akademische Freiheit," which is at once the possession and pride of every German teacher and student; the other is the complete independence as regards buildings, organization, control, equipment and staff of the different departments and sub-departments of universities and hospitals, permitting in the highest degree freedom of action, and *co-operation* without *interference*. The fullest recognition of these two features with us would go far to allay the bickering which dissipates energy and paralyzes effort, would stimulate initiative and individuality and permit of a fair and generous rivalry—all of which are conducive to progress.

In a country such as ours, where the foundations are being laid, it is important that we do not remain uninterested spectators of changes involving the future of our profession, but by a careful study and consideration, from *within* as well as from *without*, contribute our share in directing the course of events. In Canada, at present, we must not overlook the primary and most important function of our medical schools, to turn out well educated, thoroughly trained and sound *practitioners*, and from among these, in the fullness of time and opportunity we are most likely to find those capable of more advanced and original work.

In conclusion, may I be permitted to express the opinion that those men with knowledge of clinical work and the widest experience in its practical application are best qualified to know what is most essential in the clinical training of students. If this be not the case, then we must accept a position where

"Pinafore" can no longer be considered a comic opera, but rather a great epic, and hereafter we must listen with the serious upturned faces of believers when the first Lord of the Admiralty sings his sage advice:

> "Now, landsmen all, whoever you may be,
> If you want to rise to the top of the tree,
> If your soul isn't fettered to an office stool,
> Be careful to be guided by this golden rule,
> *Stick close to your desks and never go to sea,*
> And you all may be rulers of the Queen's navee."

The history of the profession in this city and province is one of which we may all be proud. Let us therefore not forget the great work of those who labored faithfully and well, with little encouragement or reward, to bring about the conditions which have made possible the rapid progress of recent years. If we of the present day have as keen a perception of what is best and equal energy and courage in accomplishment, we need not fear the verdict of future generations.

THE MEDICAL TREATMENT OF GRAVES' DISEASE*

BY JNO. A. MACGREGOR, M.D.
Lecturer on Medicine and Clinical Medicine, Western University; Physician to Victoria Hospital, London, Ont.

I wish, first of all, Mr. President and Gentlemen, to express my sense of the honor which your committee has done me in inviting me to open a discussion on the medical treatment of exophthalmic goitre, and also my keen appreciation of the responsibility which I incurred in accepting, this all the more since the surgical treatment has been so vigorously presented by a previous speaker.

The unsatisfactory place held by drugs in the treatment of Graves' disease is convincingly attested by the array of medicinal agents of such widely different pharmacologic action which receives approval at the hands of the profession in the routine treatment.

The absence of a definite pathologic conception of the disease and the chronicity of its course are in great measure responsible for the recommendation of these multifarious agents, while the natural tendency of the disease in most instances to undergo spontaneously more or less complete remissions, or, as not infrequently happens, proceed to a complete recovery, has given many of them a reputation which they in no measure merit.

Of the many drugs extolled, and their number increases with the zeal of the pharmaceutical houses, all are for the most part unreliable, many are useless, while some are positively harmful.

I shall mention only a few of those which, owing to a credulity not alien to the professional mind, have enjoyed therapeutic pre-eminence, but whose inefficacy in this instance is gradually becoming recognized.

Belladonna long enjoyed a reputation on the theory that it diminished the output of the thyroid. Evidence fails to show that it possesses any influence in checking this secretion. Similarly, confirmation of the view that ergot diminishes the vascular

* Read at the annual meeting of the Ontario Medical Association, held at Toronto, May, 1912.

supply of the thyroid is lacking. Digitalis fails to control the palpitation and tachycardia, and should not be administered in the absence of indications in the heart and circulatory system such as would warrant its exhibition in other conditions. Arsenic may possess slight tonic properties appreciable to its advocates who recommend its administration in small doses for very long-continued periods. This in itself is not without some danger of producing an intoxication. The more recently advocated quinine hydro-bromide I have used without any apparent beneficial effect on the disease. It has this distinct advantage over some of the other drugs, it is apparently harmless.

This can scarcely be said of iodine and its preparations and thyroid products. The former tend to increase the thyroid activity, and the latter, introduced in the earlier days of organo-therapy, serves in most instances only to aggravate symptoms. There is but one indication for its employment in Graves' disease, and that is in the infrequently observed cases in which the secretory activity of the gland finally fails and the patient presents evidences of myxedema. Little or no remedial virtue other than a purely psychic effect follows the local application of remedies such as iodine, mercurials, Faradism, galvanism and X-rays.

The application of organo-therapy promised much on its introduction, but an extended employment has only served to demonstrate its inefficiency. Thyroid, thymus and adrenal preparations, along with the milk and serum of thyroidectomized animals, have each in turn been tried and found wanting.

A cytolitic serum suggested by Beebe some five or six years ago is at present receiving some attention. Unfortunately, as in the case of other measures, including surgery, good results are to be hoped for only in the early milder cases. In the moderately severe the final results are not so favorable, while in the more advanced cases the "serum may not only do no good to the patient, but it may do harm." Beebe himself, in employing the serum, concedes " no relaxation in the other common-sense medical measures."

Sceptical as I am as to the value of drugs in general in the direct cure of the disease, I recognize their usefulness in the general management of the patient as indications may arise.

But even here equally good if not better results may be attained by physical and dietetic methods.

Ferruginous preparations may be employed to combat an anemia, care being taken to exclude by hemoglobin estimation the vaso-motor pallor not infrequently seen. Loss of appetite and digestive disturbance must be managed along general lines, with due attention to securing by enemas or mild laxatives a daily evacuation of the bowels. The vomiting and diarrhea ordinarily yield to dietetic management and the remedies usually employed. In severe vomiting a hypodermic of morphia (1-8 grain) is often productive of prompt relief. The nervousness and circulatory excitement yield most readily to rest. For the former bromides may be employed, and for the latter an ice-bag applied over the precordia and thyroid gives much relief.

Irrespective of the line of medicinal treatment employed, the regulation of the patient's life is of paramount importance. Rest of body and mind, and improvement of the general nutritional disturbance is essential. So much are these measures involved in the recovery of the patient that many surgeons now insist on a prolonged rest cure as a precedent or as a sequel to their operative interference. The more marked the symptoms the more are these imperative. The patient should be relieved from social, home and business anxieties. As much time as possible should be spent quietly in the open air, and an abundance of substantial foods should be taken in order to improve nutrition. Tepid or cold sponging carried out by an attendant once or twice daily, and followed by a brisk rubbing, offers an excellent method of improving physical and nervous tone. In the milder cases moderate exercise, especially walking, never carried to the point of fatigue, may be indulged in, while in the more severe cases massage may be utilized with benefit. This must be continued over a period of many weeks or even months, at least until the symptoms show distinct amelioration.

A rest cure modified according to the activity of the symptoms, and the circumstances and resources of the patient, offers the best opportunity of restoring the nutritional loss and furnishing the freedom from worry, care and excitement, conditions which more than any other prejudice the patient's chance of improvement. In the severe cases, and especially in those

with distinct psychic disturbance, the Weir-Mitchell treatment should be carried out in its entirety, away from the patient's home and under the supervision of a competent nurse. In the milder cases the regimen need not be so strict, but the patient should spend much of his time at rest. Of no inconsiderable importance is the instillation of the spirit of hopefulness for ultimate recovery. I have found it very imprudent to propose surgery as an ultimate expedient should medical means fail. In the patient's mind the prospect of having finally to undergo an operation tends to undermine confidence in the methods employed as well as engender depression.

In every case the return to a more or less active life should be even further deferred and more carefully guarded than is necessary when completing a rest cure in the case of an ordinary nervous breakdown. The patient should subsequently lead an equable life free from the perturbations incident to present-day business and social demands.

Summarizing, I would mention a few points to be kept in mind in the management of Graves' disease.

First: The importance of early recognition, for the sooner the patient is subjected to management the sooner will improvement occur and the more complete and permanent the result will be.

Second: The natural tendency of the disease, especially in milder cases, to recovery.

Third: The inefficacy of drugs in the routine treatment, other than for the relief of symptoms.

Fourth: The prime importance of mental and physical rest and improvement of nutrition.

Fifth: With amelioration of the symptoms the great necessity of care subsequently on the part of the patient, to maintain nutrition and avoid excitement and worry.

Sixth: The efficiency of medical measures should be thoroughly tested in all cases before considering, let alone suggesting to the patient, the advisability of subjecting him to the shock and risk incident to surgical intervention.

In conclusion, gentlemen, I trust that you will overlook the defects and remedy the shortcomings of this introduction to what I anticipate will to me prove a profitable discussion.

331 Queen's Avenue.

CHOLELITHIASIS

JOHN HUNTER, M.B., TORONTO.

Surgeons, and many physicians, are so familiar with gall-stone cases" that it may seem almost a waste of time and paper to report another case. However, this case will show, as hundreds of others have shown, that the detection of the presence of gall-stones in the biliary ducts may involve almost insuperable difficulties, while an error in diagnosis may be attended by tragic results to the patient. There is also another cogent reason for reporting "cases in practice," for hundreds will read an article in a journal, who would scarcely take the trouble to read the subject in a work on surgery unless their attention was thus directed to it.

The following case presents many of the classic symptoms and signs of the presence of calculi in the gall bladder and of obstruction in the biliary ducts: Patient, 56, female, German, fleshy; family and personal history shows health unimpaired by either hereditary taint or severe illness. Mother of a large family, and with strenuous household duties. She can trace the "attacks" back about ten years. She has been under the treatment of at least five physicians, and for nearly a year under Christian Science influences. The "attacks" varied greatly as to length of time between recurrences, in duration, and in intensity of pain, in gastric disturbances, and in the amount of discoloration—jaundice. Each attack was "ushered in" by a sensation of fulness and tenderness over region of gall-bladder. The pain would radiate widely. There would be nausea and vomiting, and later constipation and jaundice. Between attacks patient would regain her normal health, and the discoloration of the skin and of the eyeballs disappear. Patient was seen for the first time by the writer about 10 p.m. Tuesday. There had been nausea and vomiting since morning. Pain had become unbearable. She was tossing to and fro on the bed. Dulness extended downwards below border of right ribs. She complained of "chills and fever." Temperature 104. Diagnosis: Calculi in gall-bladder and some obstruction of biliary ducts. The abdom-

inal distention was removed, and the colon emptied of very offensive contents by a couple of rectal injections of hot soapsuds. A hypodermic of one-third gr. of morphia was given. Removal to the hospital for an operation advised. This advice was refused. Saw her at 10 a.m. next day. She was free from pain, but there was marked jaundice. Advice again rejected. At 5 p.m. the pain was so severe that consent was easily obtained. She was given another hypodermic, and at once removed to the Toronto Western Hospital. At 9 a.m. the following day the writer administered ether, and Dr. Spence, assisted by Dr. Clemens, opened the gall-bladder and removed some 127 stones. One of these was about the size of a cherry, yellowish color, with very rough surfaces. Three or four others were of about the same size, but these and all the smaller ones were of a dark brown color, with smooth surfaces and well-marked facets. The walls of the gall-bladder were very thin and translucent. It was about the size of a fist, and contained, in addition to the calculi, about a pint of clear mucus unstained by any bile. The paroxysms of severe pain were doubtless due to, at least, temporary obstruction of the mouth of the cystic duct by a calculus, and by an increased secretion of mucus. It can be easily understood how a tragedy might have occurred in this case. A cough, a strain, or pressure could have ruptured the very thin, tense wall, when the contents of the gall bladder would have escaped into the abdominal cavity, with a fatal result from shock or peritonitis.

This case is a classic in so far as differential diagnosis is concerned. Unimpaired health between the attacks excluded malignant disease of either pancreas, liver or stomach. Absence of hematemesis, or any gastric disturbance after meals, ruled out gastric ulcer or morbid condition of pyloric end of stomach. Absence of any pelvic symptoms excluded the existence of appendicitis or of an ovarian cyst. Renal calculi could be omitted, as there was no disturbance of the functions of the renal system other than the voiding of a larger quantity of dark-brownish-colored urine after each attack. The entire disappearance of the jaundice between attacks ruled out persistent occlusion of the hepatic, common, or cystic ducts. The presence of fever and chills during the attack, and the subsequent jaundice would point to an involvement of the mucous membrane of the ducts—chol-

angitis—as the cause of the temporary obstruction. At the time of operation no calculi were found outside the gall-bladder, and the complete restoration of the hepatic functions seems to exclude their existence elsewhere.

The operation consisted in the usual vertical incision. The gall-bladder was extruded at once through the opening, and an incision made in its wall. A drainage tube half an inch in diameter was inserted, and retained by a suture, and the rest of the wound closed. Four hours after, the colon was flushed out with a hot injection of normal saline solution. This was repeated every six or eight hours in order to re-establish normal peristalsis throughout the intestinal tract, and to prevent any distention of the bowels from gas and decomposition of fecal matter. The color of the feces and the discharge from the drainage tube indicated the early return to a normal condition of the hepatic function. On the third day calomel in divided doses, followed by magn. sulph., was ordered. This produced the only real disturbance during the whole period of convalescence. The comfort to the patient, and the happy results following the early and frequent use of hot injections for the first three or four days after an abdominal section, other than where the bowel itself has been sutured, should be a sufficient reason for the exclusion of calomel, magn. sulph. or other irritant purgative. There is always more or less paresis of the bowel after the shock from an operation. The first duty of the physician—for unless there is some technical skill required in the subsequent dressing of the wound, the surgeon's attendance should cease with the removal of the patient from the operating table—is to re-establish peristalsis. This is far more quickly and safely effected by means of injections into the lower portion of the intestinal tract than by the introduction of purgatives by way of the stomach. Another very desirable effect following the use of rectal injections is the desire, and also the ability, of the patient to return to a full diet. The early re-establishment of normal peristalsis excites the digestive secretions throughout the whole gastro-intestinal tract, and thus provision is made for the digestion and assimilation of food. This increase in nutrition shortens the period of convalescence.

Some objection may be made to the summary dismissal of the surgeon's services after the operation. Why should his ser-

vices be continued? If the physician has intelligence and experience enough to diagnose the disease, and treat the patient properly up to the time of operation, why should he not be able to continue his work after the morbid factor has been removed? If it were made an established practice for the surgeon to leave the patient entirely under the care of the physician after an operation, the reputation of the physician would be conserved. It would be an imperative obligation for the latter to see that neither the welfare of the patient nor the reputation of the surgeon suffered anything at his hand. Such a custom would put away the unethical and disreputable squabbling about the "splitting of fees," for both surgeon's and physician's services would be fully recognized.

THE INTERNATIONAL COLLECTIVE INVESTIGATION OF OZENA *

BY D. J. GIBB WISHART, B.A., M.D.C.M., L.R.C.P., LOND.,
Surgeon for Diseases of the Throat, Nose and Ear, Toronto General Hospital.

"Ozena, the disease characterized by slow development, and leading to atrophy, crust formation, and fetor, without ulceration, at the present day remains a mysterious disease, in spite of much laborious work by eminent investigators.

Numerous hypotheses, instead of serving to elucidate, have led to a confusion of ideas which greatly hinders definite research. It has become more and more evident that we lack an essential basis, and that certain fundamental questions must be solved before we can enter upon the further study of this difficult subject.

Our numerous bacteriological investigations have no foundation on which to rest until the infectiousness of ozena is established.

The many ingenious attempts to represent ozena as having the characters of an inherited constitutional disease are valueless as long as the hereditary transmissibility of ozena is unproved.

Infectious or hereditary? To this question laboratory research has vouchsafed no reply, nor has clinical observation of the individual yielded important proof relative thereto.

A comprehensive question such as this is not to be settled by the examination of single individuals, but by dealing with them collectively. We must study ozena as a disease of the people."

In the above words Professor Alexander of Vienna appealed last September to the Third International Laryngological Congress in Berlin, which the writer had the honor of attending as a delegate from the Canadian Medical Association, with the result that, not only was the collective investigation ordered, but it has been thoroughly organized so far as the continents of Europe and North America are concerned. The task for Great Britain and her overseas dominions has been placed in the hands of Dr. Brown Kelly of Glasgow, who has associated with

* Read before the Ontario Medical Association, May, 1912.

himself Drs. St. Clair Thompson and Logan Turner. All three of these attended the gathering of the British Medical Association in this city a few years ago, and in their hands the work will be efficiently performed.

This British National Committee has placed itself in communication with the various Provinces of our Dominion and appointed certain representatives. Dr. Birkett of Montreal has charge of the investigation for Quebec and the Maritime Provinces, Dr. Prouse for Manitoba, Dr. Boucher for British Columbia, and the writer for Ontario.

Each organizer is allowed to appoint a small sub-committee and instructed to conduct examinations in all schools, orphanages, institutions for blind and deaf mutes, homes for incurables, hospitals, lunatic asylums, sanatoria for consumptives, creches, military barracks, and all other institutions containing large numbers of persons.

It is hoped that in the above way the co-operation of such a host of workers will be secured that the investigation will result in clearing up the difficulties referred to in words already quoted from Professor Alexander.

Assistance will be welcomed from every medical man who is desirous and capable of taking part in the work or who has material bearing on the subject, and particularly from the medical officers in charge of the various institutions.

The next Congress will meet in Copenhagen in 1915, and the Central Committee are desirous that all reports should be in their possession within two years from now.

Society Proceedings

THE ACADEMY OF MEDICINE, TORONTO

The Stated Meeting of the Academy of Medicine for the month of November took place in the Biological Building of the University of Toronto on Tuesday, November 5th. On that occasion the address was delivered by Mr. Arbuthnot Lane, F.R.C.S., Eng., Surgeon to Guy's Hospital. The Academy were certainly honored in having Mr. Lane as the guest of the evening. The attendance could not have been better, the auditorium being almost filled to capacity. We publish Mr. Lane's address in this issue. After the programme refreshments were served.

The following is a digest of the different Section Meetings that took place during November:

Section of Ophthalmology and Oto-Laryngology.

Monday, November 4th, at 8 o'clock. Clinical Evening.

I. Presentation of Cases.

II. Discussion of Cases.

Geoffrey Boyd, Chairman. T. Alexander Davies, Secretary.

Section of Pediatrics.

Thursday, November 7th, at 8.30 o'clock, sharp, in the Hospital for Sick Children.

I. Clinical Cases:

(*a*) Chronic Recurrent Pyrexia. J. T. Fotheringham.

(*b*) Achondroplasia. R. D. Rudolf.

(*c*) Selected Cases. J. S. Graham.

II. The Diagnostic Value of Tuberculin. Duncan Graham.

R. D. Rudolf, Chairman. G. F. Boyer, Secretary.

Section of Medicine.

Tuesday, November 12th, at 8.30 o'clock, sharp.

The evening was devoted to a discussion on certain aspects of Syphilis.

I. Demonstration of Cases.
II. Laboratory Demonstrations. D. A. L. Graham, G. S. Strathy, C. S. McVicar, R. W. Mann.
III. Papers:
(*a*) Treatment of Syphilis by Salvarsan and Neosalvarsan. J. Guinane.
(*b*) Treatment by other agents. Graham Chambers.
(*c*) A comparison of the results of treatment by Salvarsan and mercury as shown by the Wassermann Reaction. G. S. Strathy, Gordon Bates.
(*d*) The Sociological Problems of Syphilis. Helen MacMurchy.
IV. General discussion was opened by D. King Smith.
H. B. Anderson, Chairman. Frederick C. Harrison, Secretary.

Section of Surgery.

Tuesday, November 19th, at 8.30 o'clock.

I. Exhibition of Gastroscope. J. D. Gibb Wishart.
II. Case of Splenectomy following Injury. John R. Parry.
III. Skiagraphs of the Stomach. F. N. G. Starr.
G. Silverthorn, Chairman. Warner Jones, Secretary.

Section of Pathology.

Was held in the New Pathological Building, University Avenue, Tuesday, November 26th, at 8.30 o'clock.

I. Autopsy specimens.
II. Chronic Family Jaundice. Fletcher McPhedran.
III. Demonstration of Glomerular Lesions in Experimental Nephritis. J. J. Mackenzie.
J. B. Leathes, Chairman. N. T. Maclaurin, Secretary.

Section of State Medicine.

Thursday, November 28th, at 8.30 o'clock.

I. The Carrier Question in Scarlet Fever, Diphtheria, Typhoid Fever, and Measles. H. W. Hill, M.D., Director of Institute of Public Health, London, Ontario. (By request.)
II. Discussion. Opened by J. A. Amyot.
W. L. T. Addison, Chairman. M. B. Whyte, Secretary.

The Stated Meeting for December will be held on the 3rd inst. in the Academy Building, when a symposium will be presented on "Infections."

Selected Articles

THE GREAT MODERN HOSPITAL—PRESENT-DAY STANDARDS OF ORGANIZATION AND EQUIPMENT

By W. Gilman Thompson, M.D.,

Professor of Medicine in the Cornell University Medical College, New York City; Visiting Physician to the Presbyterian and Bellevue Hospitals.

The famous bronze equestrian statue of Colleoni is a familiar sight to every tourist in Venice, but few visitors have seen the interior of the great Ospidale Civile whose picturesque facade forms one of the boundaries of the little square in which the statue was placed in 1495. This hospital, originally erected as a trades-school in the thirteenth century, was converted to its present purpose more than two centuries ago, and is one of the oldest institutions of its kind in Europe. As such it serves to illustrate the primitive conception of a hospital, which was that of a mere lodging-house, or, as Spenser used the word, "a place of shelter and entertainment" for the *hospes*, or guests. In such buildings the sick were placed in long rows of beds and given pills and potions, or sometimes were operated upon, but all without regard to classification of their ailments, or the peculiar requirements of the individual as to his surroundings.

In this Venetian hospital into which patients are borne in gondolas in lieu of ambulances, may still be seen one great ward containing 150 beds, and a huge altar upon a platform at the end. It is true that other rooms, such as an excellent children's department and operating pavilion, have been added, but the practice of herding the sick together, which so long has characterized all large hospitals, remains markedly evident.

HOSPITAL CONSTRUCTION A FACTOR IN TREATMENT.

In strong contrast with this now antiquated lack of system is the modern hospital conception involving the segregation of

diseases, and much broader lines of treatment. This conception is based upon the most notable advance in medical science achieved within the past few years, namely, the recognition of the influence of *environment* in the treatment of disease, either as an adjunct to purely medicinal remedies, or, in many cases, as a substitute for them. As a natural sequel, the important principle has been evolved that a hospital building should be adapted structurally as a most essential factor in treatment. It has been well said that almost as much of the modern hospital should be constructed outside of its walls as within them. Wide verandahs should open with easy access from all sides of the wards (as in the new Bellevue Hospital in New York), so that the beds may be rolled out and patients given the benefit of fresh-air treatment at all seasons, with due regard to shelter from sun and wind. The roof must be flat and adapted for exercise and recreation, and it should be provided with a diet kitchen, wind shields, and all conveniences, so that many classes of patients may remain continuously, day and night, in the open air, well removed from the dust, noise, and confusion of the streets. "Day-rooms" also are furnished so that convalescents may withdraw from depressing association with the very ill.

It is now a recognized principle that the unit of size for the larger wards should not exceed a capacity of sixteen beds, and, in addition, many smaller rooms to accommodate from one to four or five patients are a necessity for the best results of treatment, both medical and surgical. The patient who intrusts his life to hospital authorities has a right to expect far more than mere food, lodging and medicine. If suffering from insomnia, obviously he should not be placed next the patient with delirium tremens. If a depressed neurasthenic, he should not be compelled to witness the death of some unfortunate with heart disease. If delirious with typhoid fever, he should be placed in a separate room with protected windows, and not in a great ward with all the confusion attending the necessary movements of nurses and doctors, and of groups of students and visitors. The patient with Bright's disease, needing hot packs, is a poor bed-neighbor for a case of pneumonia needing fresh, cool outdoor air.

In a large ward it is impossible to adjust properly the conditions of light, air, and quiet with the precision which their recog-

nized value demands, and hence the importance of the structural adaptation of the wards and their accessories to treatment. All this, however, constitutes only a part of the modern hospital, and fully as much additional space must be provided for the means employed for diagnosis and special therapeutic measures. So extensive have these requirements become, that in many of the modern foreign hospitals separate buildings as large as the ward pavilions are erected to meet them. Thus the hospital designed to accommodate two or three hundred patients becomes a group of correlated buildings, and an institution for a thousand patients becomes a veritable village.

NOTED FOREIGN AND AMERICAN MODERN HOSPITALS.

Italy, for example, while retaining some of the oldest types of hospital construction, as seen in Venice and Florence, also possesses one of the finest of modern hospital plants, the Policlinico, in Rome, which, like the new Rudolf Virchow and Moabit Hospitals in Berlin, the City Hospital of Düsseldorf and the General Hospital of the City of Mexico, are as far in advance of any completed hospitals in this country as the Capitol at Washington surpasses a primitive town-hall. The only American hospitals which have thus far been begun upon plans comparable to them are the Cincinnati General Hospital and the Municipal Hospital on Blackwell's Island, New York.

But what are these needs of modern hospitals which necessitate so much more space than was ever thought of in the days of the primitive barrack type of wards, some of them erected even within the past decade, and how have such needs arisen? Briefly, they may be said to include all that is done for the patient apart from the giving of food and medicines, and they have arisen from the extraordinary progress of medical science, particularly in the fields of bacteriology, serumtherapy, and pathology, and in the adaptation for medical uses of the recent discoveries in the electrical and mechanical sciences. Moreover, the hospital has become a centre for investigation, research, and education to an extent never imagined heretofore.

A more detailed description of the many departments of the great public hospitals will make clearer their manifold functions.

The Policlinico Umberto Primo in Rome, named in honor of

the late King Humbert, has a capacity of one thousand beds and comprises forty-four separate pavilions, covering forty-five acres of ground near the Colosseum. In addition to the numerous ward pavilions for general medicine and surgery, are separate buildings for groups of cases, such, for example, as a children's department, one for diseases of the eye and ear, buildings for infectious diseases, etc. There is a large separate building for pathology, and one for hydro-therapy, another for purely administrative purposes, and independent laundry and kitchen buildings.

A well-lighted subway, communicating with all the buildings, contains water and heating pipes and a track upon which delivery cars fitted with heating appliances convey food from the central kitchen to the ward pavilions. The latter are connected by a series of both open and closed corridors. For the benefit of the convalescents, the grounds are made attractive with pines, oleanders, and palms.

In Berlin, three of the finest hospitals (the Rudolf Virchow, Moabit, and West End) cover collectively one hundred and twenty-four acres, all within the city limits. The first, which was opened in 1906, occupies sixty-eight acres with fifty-three buildings. The entire plant was ten years in construction at a cost of $4,000,000, or about $2,500 per bed, and before ground was broken for any of the buildings long avenues of trees were planted, among which fountains play, so that by the time the wards were ready for occupancy the patients had a most attractive and reposeful outlook. The specifications given to the architect include instruction that the buildings "should not be too ornate, but present a pleasing exterior, bearing in mind the beneficial effect upon the sick of a cheerful environment," and the motto suggested for the main entrance archway might well be repeated over many an American hospital door: "*Treat the disease, but do not omit to treat the man.*"

In addition to the patients' pavilions are separate buildings for each of the following purposes: a lay director's house; two medical directors' houses; administration building; nurses' home; bath-house; kitchen; laundry; workshops; pathological laboratories; animal experiment house; wagon house; disinfection building; gymnasium; chapel; ice-house; water-tower; fil-

tration plant; crematory, and power-house. The group of buildings, constituting a small village, has beds for 1,650 patients, with 550 more beds apportioned among the staff, nurses, and attendants.

The Cincinnati General Hospital, the conception of which is mainly due to the masterful knowledge of hospital science of its Advisory Commissioner, Dr. Christian R. Holmes, is situated in the outskirts of the city. When completed it will include upward of forty buildings, those designed for contagious diseases being already erected. Dr. Holmes states that, although a patients' pavilion with a capacity of forty-five beds may be built for the cost of $2,000 per bed, the necessary accessory buildings bring the cost above $3,000 per bed. Those buildings which contain no patients' beds he enumerates as follows: "a large general administration building (which will also house the internes); a residence for the superintendent and family; a small administration building for the contagious diseases department; a surgical operating pavilion; a kitchen and service building (also housing the female help); a power plant, with laundry and workshops (and housing the male help); a chapel; a morgue; pathological laboratories; a disinfection station; an ambulance station; a nurses' home; a bath-house, and health gymnasium."

New York City possesses on Blackwell's Island an ideal hospital site, and if the city shall carry out the admirable plans evolved by its former Commissioner of Charities, Robert W. Hebberd, the opportunity will be at hand to develop what may well become the greatest hospital plant and centre for medical study in the world. These plans contemplate a series of groups of hospital buildings alternating with public parks intended for the use of the sick poor, their families and friends. The long narrow island, two miles in length, may be made accessible to two boroughs by connection with the East River Tunnel, the Queensborough Bridge, and a system of ferries by means of which ambulances may be carried in four or five minutes from the city's shores direct to the hospital. The plans, as elaborated by the architect, Raymond F. Almirall, call for certain modifications in the hospitals which now exist at the ends of the island, and the replacement of the central penitentiary building by modern hospital pavilions connected, like the Policlinico in Rome, by

subways and corridors. Already several buildings have been erected in conformity with Mr. Hebberd's conception, namely, a superintendent's dwelling, a new home for nurses, one for the interne staff, and a large kitchen and service building. Mr. Hebberd also constructed a large steamboat, fitted with doctors' and nurses' quarters and having space for three hundred convalescents, who may be given the benefit of fresh air and change of scene while the boat is utilized in transporting supplies for the different institutions of the Department of Charities. This last feature is as unique as it is valuable as an adjunct to hospital treatment, and the island itself offers to the poor many of the advantages usually limited to the command of the rich, such as change of air, summer coolness, attractive environment, and diversion. It lies in almost the exact geographical and population centre of Greater New York, accessible from all its boroughs, and is capable of accommodating 15,000 patients. As a centre for medical education and scientific research it would have no rival.

THE THERAPEUTIC INSTITUTE.

Hospital efficiency should not be measured, however, in terms of the number and size of buildings alone, and many small institutions are providing modern facilities for diagnosis and treatment of very creditable extent, although their cost is a matter which their private benefactors, or, in the case of municipal institutions their official sponsors, are as yet far from comprehending.

There are four non-medicinal adjuncts to treatment, to each of which of late years considerable space is given in a well-appointed hospital. They comprise the varied methods: (1) of applications of water or hydrotherapy; (2) of applications of heat and cold, or thermotherapy; (3) of mechanical exercises, or mechanotherapy, and (4) of electric applications, or electrotherapy.

In some hospitals, notably in the new Düsseldorf City Hospital, the West End, in Charlottenberg (Berlin), and the General Hospital in Mexico, all these treatments are given in a building known by the general name of the "Therapeutic Institute." In other hospitals they are conducted in convenient apartments in closer association with the wards.

The complete hydrotherapy equipment comprises every form of hot and cold bath and douche—the spray, salt, needle, plunge, Russian, mud, fango—and included with it are thermic appliances for the hot dry sand bath, the hot air bath, and electric light bath (merely designed to induce perspiration, not as an application of electricity). An important treatment consists in modifying simultaneously the force and temperature of a stream of water directed by the operator from a central series of controlling faucets, as it is directed upon the patient, who may stand as far as fifteen feet distant. In this manner the forceful shock of the water is added to that of alternating heat and cold, both powerful agents in stimulating nerves and muscles. As adjuncts to the hydrotherapy apparatus are quiet rooms for rest after treatment, tables or couches for massage, and dressing-rooms.

The thermotherapy appliances, in addition to those above-mentioned, include different forms of apparatus in which rheumatic joints may be "baked" at several hundred degrees of temperature.

Mechanotherapy comprises the use of ingenious automatic machines, rollers, saddles, vibrators, cushioned hammers, and the like, adapted to exercise groups of muscles and impart mechanical stimulation to them. The saddle motions counterfeit those of horseback-riding. Such exercises have application for many disorders of the nerves and muscles, in the reduction of obesity, and other conditions. The variety of apparatus of this type includes several score machines, and in the Massachusetts General Hospital in Boston a room eighty feet square is required to contain a complete series, which is set in motion by electric power.

Another form of mechanotherapy is well illustrated in the same institution. It consists of specially devised stairs, parallel bars, measured floor patterns, etc., designed to "re-educate" groups of muscles, which through disease such as locomotor ataxia have passed from normal control. It emphasizes the progressive hospital methods to note that this disease, in certain stages, was regarded formerly as almost hopeless of relief, and the patient was kept in bed with the vain solace of medicines.

Electrotherapy, as well as electric apparatus for diagnosis, occupies large space in the modern hospital equipment. Originally confined to the use of batteries for applying electric cur-

rents to weakened muscles and nerves, for the galvano-cautery and sometimes for electric baths, electricity as a generator of the X-ray has now come into such general use that no large hospital is complete without an X-ray department. Beginning with its employment for diagnosis of fractures and dislocations and determination of the exact position of calculi and foreign bodies, such as bullets, the Roentgen ray was next used in the treatment of various diseases, especially malignant growths and obstinate forms of cutaneous eruptions. Recently, moreover, it has been discovered that if an inert suspension of bismuth in mucilage be swallowed, the bismuth, which under the rays casts a black shadow, may be traced throughout the entire course of its passage through the digestive tract. It thus may be utilized to determine the position as well as any abnormal narrowing or dilation of important viscera which are otherwise invisible. It is furthermore of service in outlining the form, position and character of motion of the heart, and by outlining unequal contraction of the diaphragm on the opposite sides of the body, deficient expansion of the lung may be detected in incipient tuberculosis, sometimes before the diagnosis can be established by older methods.

In illustration of the space needed for the electrical department, may be mentioned the X-ray plant of the Boston City Hospital, which, under the skilful direction of Dr. Francis H. Williams, has become what is probably the most complete in this country. Here may be seen a number of X-ray machines, adapted by different strength and mechanism to fit over any part of the body, the nature of the current used for treatment being somewhat different from that best for radiographic plates. Whereas brief exposure to the X-ray does the patient no harm, its continued contact, day after day, in the case of the operator involves risk of serious burning of the skin. The exposure rooms are therefore fitted with leaden-faced doors, impervious to the rays, behind which the operator shields himself while manipulating the current. Elaborate frames fill other rooms on which the X-ray photographic plates are placed for illumination both by daylight and electric light. There is a large stack-room filled with upward of 20,000 plates, filed for reference. A patient who returns to the hospital years after his fracture was first pictured may have the original plate found in a few moments by the clerk

in attendance. If a patient presents some rare abnormality for examination, the plates of all similar cases on file may be taken from the shelves and placed upon the illuminating screens. The touch of an electric button illumines them all, and their peculiarities may be compared.

I am reminded of an Irishman who was being thus examined in what he was pleased to call "the divvil's own machane-shop." He was a powerfully built man and the X-ray disclosed an aneurism of a great vessel pulsating just above the heart. Wishing to know whether his occupation involved great muscular strain, I asked him what it was. "Oi've bin workin' at docthorin'," said he. Not having recognized his professional attainments, I expressed some surprise, but finally discovered that as 'longshoreman he had worked on the docks!

X-ray pictures are also often of medico-legal importance in defending the hospital against false damage suits.

An X-ray plant implies a complete photographic outfit, so that prints may be made from the negatives. A first-class X-ray plant costs at least $5,000, and a similar sum may be expended annually in maintenance, apart from the salaries of a competent operator, photographer and clerk.

LABORATORIES AS AIDS TO DIAGNOSIS AND TREATMENT.

The primitive hospital laboratory consisted of a small room fitted with a few microscopes and chemical reagents where the various secretions of the body were examined and sections of morbid tissues removed by the surgeon were submitted to microscopic study. From this beginning has developed within the past two decades, a system of laboratories used not alone for examinations but for the preparation of many curative agents for the patients. Although more or less interdependent, for convenience of description they may be classified as follows:

(1) The bacteriological laboratory, where the germs of diseases such as typhoid fever, pneumonia, and cerebrospinal meningitis are studied to establish diagnosis, and

(2) The serum laboratory, in which animal sera are prepared in order successfully to treat the diseases from which the germs have been derived. Such laboratories, apart from the necessities of good light and ventilation, must be provided with walls and

floors made impermeable to germs and permitting frequent antiseptic cleaning. The tables of glass and iron are fitted with gas, water, and electric supply. There are large "incubators" or jacketed ovens in which cultures of germs may be grown under fixed conditions of temperature, regulated by automatic gas burners. There are also sterilizing boilers in which the glass tubes and plates and various solutions in use may be rendered completely germ-free by means of steam under high pressure. Electric centrifuges, revolving several thousand times a minute, are employed to precipitate substances (sometimes germs) from suspension in fluid. A glass-blower's outfit is supplied to seal hermetically tubes containing germs and sera. A subdivision of one of these laboratories is set apart for work upon highly virulent germs, such as those of glanders, powdered tuberculosis bacilli, etc. The conditions of ventilation and sterilization here receive particular consideration.

(3) The bio-chemical laboratory, in which chemical analyses and researches are made upon the secretions and excretions of patients, and the important relations of intake of food and output of waste in such diseases as diabetes, or those of the kidney, are investigated. In this laboratory strong acids are used and noxious gases developed, hence it is supplied with large ventilating hoods. In the Düsseldorf laboratory a douche bath is kept ready so that in the event of burning the clothing the experimenter may cover himself with water before further harm results. A large mercurial pump produces a vacuum for collection of gases (oxygen and carbonic acid) from small samples of patients' blood. An electric oven incinerates tissues at exceedingly high temperatures in order to collect the ashes for analysis.

(4) The laboratory of pathology contains microscopes and microtomes or apparatus for cutting delicate sections of tumors removed by the surgeon. It is furnished with ice-chests for preservation of gross specimens, cabinets for holding jars of specimens in alcohol, etc. It adjoins the autopsy room, so that the tissues of the dead as well as of the living may be investigated. A micro-photograph department is essential in which photographs of tissues and germs are made under high magnification.

(5) The clinical pathology laboratory serves chiefly for diag-

nosis. It contains apparatus for counting blood-corpuscles and estimating the percentage of coloring matter in a drop of blood in cases of anemia, etc. There is apparatus also for determining the radioactivity of body fluids, and, in a darkened room, polaroscopic and spectroscopic determinations are made. When it is stated that the counting of a certain one of the varieties of white blood-corpuscles may decide for or against an operation for appendicitis, the value of this work may be appreciated.

(6) The physical apparatus laboratory contains elaborate and delicate apparatus for advanced research. Solid masonry tables are erected to hold fine scales and electro-galvanometers free from vibration. One of the most ingenious mechanisms in use in this laboratory consists of apparatus for measuring the force and character of the heart-beats by means of the feeble electric currents generated each time the heart propels the blood through the arteries. The patient places an arm or leg in a pan of salt water and an electric current is communicated from it by a wire to a galvanometer. The needle of this instrument, which is of exquisite sensitiveness, is deflected and its movements are illumined by an electric light and graphically recorded upon the rapidly moving film of a kinetoscope. There is thus obtained a series of vibrations, photographed in permanent form through the oscillations of a needle. Variations in activity of the heart and in the rhythm of its motion in health, in disease, or under the stimulation of drugs, may be recorded and interpreted at leisure. The wire connecting the patient with the galvanometer may be of any reasonable length, and it is a source of wonderment to sit in the darkened cabinet of the laboratory and watch the transmitted movements of the heart of a patient in another building, perhaps four or five hundred feet distant!

The laboratories above described may have several additional features in common, such as a working library of current journals and monographs, and, in hospitals in which instruction is given to students, an amphitheatre with projection lanterns, epidiascopes, etc.

An absolute essential for every large progressive hospital is an animal house for use in connection with its laboratories. There are latent cases of tuberculosis which only can be diagnosed by the aid of animal inoculations. Diphtheria, cerebro-

spinal meningitis, malignant endocarditis, and a long list of kindred, common scourges are all dependent upon aid derived from use of the lower animals if they are to be properly combated. Many obscure cases cannot be diagnosed and consequently cannot be treated intelligently without such aid. The entire knowledge of antiseptics and of germ diseases has been derived through animal experimentation, and in fact the whole system of modern hospital development is fundamentally based upon it, and much of the hope of future success in conquering disease rests upon the freedom with which hospital laboratory workers may be enabled to prosecute such research. The annual sacrifice of a few score guinea pigs and rabbits is small price to pay for the knowledge and remedies derived from them.

Yet another type of hospital laboratory remains to be mentioned, namely, that of experimental pharmacology, in which the strength of the drugs given the patients in the wards may be standardized upon animals. Many most necessary drugs, like digitalis for the heart, deteriorate on keeping, or are sold of inferior grade, and the public, including the hospital patient, is at the mercy of any pharmacist who may fail to comply with the highest standards. In a matter of life and death, such as the substitution of an inert preparation to meet a critical emergency, the danger may be averted by the control of the laboratory or experimental pharmacology.

DIET KITCHENS.

No small share of space in the modern hospital is allotted to the diet kitchens which serve as accessories to the main kitchen. The latter, in some of the newest hospitals, are most elaborately arranged. In the Moabit Hospital, for example, are separate rooms for preparing meats and vegetables, the hospital cures its own hams, and in its kitchens may be seen troughs filled with live fish, so that a patient who is ordered a fish diet may be certain of its freshness! Such extremes are doubtless unnecessary, but a good diet kitchen every hospital must have, and an expert dietician every hospital should have. The nurses in many institutions have an instruction diet kitchen, and each group of wards has its independent kitchen, where simple articles such as gruels, toast, or beef juice may be made appetizing for those

whose digestion is seriously impaired. The cooking is done by gas or electricity to avoid the noise, dust, and labor of handling coals, and appliances are furnished for keeping food served from the main kitchen hot while being apportioned for the patients. In the larger hospitals, such as the Boucicaut in Paris and the Johns Hopkins in Baltimore, food is conveyed in heated vessels upon cars on a small railroad track leading from the main kitchen to the wards.

In hospitals having a babies' service a separate milk laboratory is arranged for the refrigerators, sterilizers, bottle-washers, and other appliances used in "modifying" and pasteurizing milk for infant feeding.

To cater to the dietetic and racial habits of the cosmopolitan population of a large hospital is by no means an easy task. Mr. Hebberd told me that in one of the hospitals of his Department of Charities he had so many foreign orthodox Hebrews of a certain class that he was obliged to build a special "Kosher" kitchen where they could bake their own bread and cook other food according to their peculiar rites.

I recall an amusing incident in connection with a Hindu sailor. He was very anemic, and meat was ordered for his diet, but he would have none of it. It was finally learned through an interpreter that he would eat a chicken if it were brought to him alive and he were allowed to wring its neck after a bloodless manner of his own. With some difficulty a live chicken was procured and taken to the patient behind a screen in the ward. The bird escaped and flew directly over the bed of a partly delirious negro, who thought his time had come! He leaped out of bed and gave chase, wildly shouting "Hallelujah!" and in a moment the whole ward was in a turmoil in the effort to calm the excited negro, the astonished chicken, and the disappointed Hindu, who saw himself being so suddenly deprived of his meal!

DISINFECTION APPLIANCES.

The disinfection plant of the modern hospital is elaborate. In some of the new foreign hospitals each ward service room is provided with a small steam boiler sterilizer, in which the bedclothing of every patient is subjected to disinfection before being taken to the laundry. It is then dumped upon flat copper

trays mounted upon rollers and again dumped into a rotary washing-drum, so that it is not touched by hand in any part of the process. In the Moabit Hospital a separate drum is used for each class of articles, all the sheets being washed in one, the towels in another, etc. A clock is set when the drum is filled and an automatic bell rings an alarm when the washing has proceeded long enough, so that one attendant can care for many drums. Large steam sterilizers are provided also to disinfect entire mattresses and the patients' street clothing when necessary. In the Presbyterian Hospital in New York a small sterilizer is placed in the ward diet kitchen in which are sterilized all the plates and eating utensils used by patients who have typhoid fever.

The Presbyterian Hospital has also apparatus designed by Dr. W. P. Northrup for washing infants. Boilers are filled with water at the desired temperature, and an automatic device prevents the chance of the child being scalded by too hot water. The infant is laid on a bath towel on a marble slab and washed with a sprinkler. This is a time-saving device and prevents all possibility of contagion where many babies are being cared for.

THE OPERATING PAVILION.

The operating rooms of the larger hospitals are often grouped in a separate pavilion, for, in addition to an amphitheatre in which physicians may witness operations, are the anesthetizing and recovery rooms; sterilizing rooms for the great boilers, used in connection with the complicated high-pressure steam apparatus for sterilizing instruments and dressings; rooms for storage of instruments and dressings; closets for warming blankets, etc. Rooms are set aside for operations upon septic cases and for such delicate operations as those performed by opening the chest under conditions of atmospheric pressure which prevent collapse of the lungs. The operator's hands are inserted through openings in the apparatus which incloses the patient's head and chest, while the operator guides his work by looking in through a small window.

HOSPITALS AND EDUCATION.

All the great foreign hospitals are devoted to medical education, being almost always closely connected with a university.

The numerous laboratory experts, giving their entire time to specialized work, must be salaried, although the visiting staff may not be. If at the same time they are giving instruction to the medical students of the university, both economy and efficiency are promoted. A widespread movement is being advocated in this country to further similar coalition, for it is now well recognized that the best results are always obtained for the patients wherever the stimulus to hospital research and teaching is strongest and the facilities for them are most liberal.

The methods and appliances above described add greatly to both the structural and maintenance cost of the institutions adopting them, but it should be remembered that in proportion as new means are discovered to promote the cure of hospital patients, the duration of their stay in the wards is shortened, and a larger number may receive treatment. Moreover, a modern hospital is inevitably a great educational institution, training not alone the visiting staff, internes, and nurses, but educating both its patients and their visitors in methods of cleanliness, order, and hygiene, and extending its influence in an ever-widening sphere for the public welfare.—*The Century Magazine.*

Obituary

DEATH OF DR. EDWIN JEFFRIES

The first death from the typhoid epidemic at the Hamilton Asylum for the Insane was recorded on October 16th, when Dr. Edwin Fleming Jeffries, one of the asylum medical staff, succumbed to an attack of the disease. Dr. Jeffries had been ill about two weeks. The typhoid epidemic broke out some weeks before, and up to date there have been a number of victims of the fever.

THE LATE DR. ALICE McGILLIVARY

Dr. Alice McGillivary, a well-known medical practitioner of Hamilton, succumbed to an attack of apoplexy while out driving in her automobile at 7 o'clock on October 29th on South Catherine Street. Mrs. McGillivary was driving the car, and a patient who was in the car noticed her weakening and stopped the machine. A. M. Lewis, who was passing, took her into a house on Catherine Street and summoned her husband, Dr. T. S. McGillivary, and Dr. Rennie, but when they arrived Mrs. McGillivary was dead.

Dr. Alice McGillivary, who was about 40 years of age, was a daughter of Mrs. Margaret Skinin. Besides her mother and husband, she leaves a daughter, Gladys.

Dr. Alice McGillivary was born in St. George, Ont., and was one of the first three women to enter Queen's University as a student. While there she took honors in all her classes, and on graduating she took the highest honors in medicine and was gold medalist in arts. She was made a professor and vice-dean of the Ladies' Medical College, which office she held for five years, when the college was done away with. She then went to Chicago, and came here fifteen years ago. She has been in practice in Hamilton ever since.

News of the Month

PERSONNEL OF THE DOMINION MEDICAL COUNCIL

The Dominion Medical Council is now duly constituted, and the following are those elected at Ottawa on November 8th: President, Dr. Roddick, Montreal; Vice-President, Dr. Thornton, Deloraine, Man.; Registrar, Dr. R. W. Powell, Ottawa; Executive Committee, Drs. McKechnie, Victoria; Hardy, Toronto; Stewart, Halifax; Brett, Banff; Spankie, Wolf Island, and Normand, Montreal.

SINUSOIDAL TECHNIQUE

The McIntosh Battery & Optical Co., 322 W. Washington St., Chicago, Ill., has very recently published a very interesting little booklet, in which the physical aspects and therapeutic properties, the diagnostic and therapeutic application, the physiological action and effects, the methods of applying and the dosage and the diseases in which the sinusoidal current is indicated are fully explained. The booklet also contains an interesting abstract of Dr. Albert Abrams' article on the sinusoidal current's applicability for exciting the reflexes, a reprint of Dr. Albert Geyser's article on Sinusoidal Electricity, a full explanation of the McIntosh newest sinusoidal apparatus, its wide range of modalities, its advantages and improvements, principles of operation, and illustrations of the difference in waves in the faradic, surging galvanic, slow sinusoidal, rapid sinusoidal, etc., currents.

While primarily, of course, intended as an advertising medium, a great deal of information can be gained from this little booklet, sent free on request to any one by the McIntosh Battery & Optical Co.

When you send for it, kindly mention this journal.

THE JACKSON HEALTH RESORT

The Jackson Health Resort, Dansville, New York, have just issued a beautiful half-tone picture 12x30 inches in size, which shows from a new point of view, its remarkable scenic situation. They will send it to anyone desiring to become familiar with this well-known Institution, whose chief characteristic is the thoroughness of the work done in behalf of the sick or tired out, who seek its healing and recuperative agencies.

The management and equipment of this Resort is fully up-to-date for administering modern therapeutics.

MODIFIED MILK IN INFANT FEEDING

The October issue of *Pediatrics* contains a paper giving a practical *résumé* of existing knowledge upon the modification of cow's milk as a substitute infant food. The author has made a comprehensive study of the subject from all points of view, and dwells especially upon the value of cereal decoctions in the modification of cow's milk. In this issue there is given a short abstract from the paper, showing its scope and character. The practical nature of the paper will appeal to the general practitioner, and copies can doubtless be had of the author.

PERSONALS

Amongst the Toronto physicians who have recently visited the Hotel Del Monte, Preston Springs, are Dr. J. O. Orr, Dr. A. W. Mayburry, Dr. E. Herbert Adams, Dr. and Mrs. C. F. Moore, and Dr. and Mrs. Frawley.

Mr. Arthur C. Hendrick, M.A., M.B., of the staffs of the University of Toronto and the Toronto General Hospital, has passed with distinction the examination for the degree of Fellow of the Royal College of Surgeons of Edinburgh and has been duly admitted a Fellow of the College. Dr. Hendrick was a Blake scholar at matriculation and graduated with first class honors both in Arts and in Medicine, and also holds the post-graduate degree of M.A. of the University.

The Physician's Library

BOOK REVIEWS

The Clinical Pathology of Syphilis and Parasyphilis, and Its Value for Diagnosis and Controlling Treatment. By Hugh Wansey Bayly, M.A., M.R.C.S., L.R.C.P., Pathologist to the London Lock Hospitals, Clinical Pathologist to the National Hospital for the Paralyzed and Epileptic, Assistant in the Bacteriological Department of St. George's Hospital. Crown 8vo, 194 pages, 3 plates, 22 figures in text. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1912. Price, 5s. net.

This work is of interest to the general practitioner, but more especially to those doing laboratory work.

The spirocheta pallida is described and illustrated and also the methods of staining and preparation of specimens.

The special modification of the microscope is illustrated, and thus outfitted one would think it an easy matter to demonstrate the spirocheta, notwithstanding the fact that many have failed in the search. The Wassermann reaction, including its nature and technique, occupies a large part of the work.

There are chapters on the cerebro-spinal fluid, the urine, and the treatment of syphilis with salvarsan and mercury.

It is a very compact and instructive little work.

W. J. W.

The Practitioner's Visiting List, 1913. Thirty patients per week. Philadelphia and New York: Lea and Febiger.

Messrs. Lea and Febiger's Visiting List for 1913 has just reached us. It is certainly a welcome visitor to the Physicians' office from year to year. It is an immense labor saver, making a very compact book and fits the pocket. It is gotten up for thirty patients per week and contains, in addition to the ordin-

ary visiting list forms, a great deal of information in reference to such matters as dentition, ordinary weights and measures, the metric system, poisons and their antidotes, artificial respiration, table of doses, etc.

A Text-Book of Human Physiology, including a Section on Physiologic Apparatus. By ALBERT P. BRUBAKER, A.M., M.D., Professor of Physiology and Medical Jurisprudence in the Jefferson Medical College; formerly Professor of Physiology in the Pennsylvania College of Dental Surgery; Lecturer on Physiology and Hygiene in the Drexel Institute of Art, Science and Industry. Fourth edition, revised and enlarged, with one colored plate and 377 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1912. Price, $3.00, net.

The chapters treating of the stomach and intestines and the digestion and absorption of proteins, the physiological mechanism of the heart and circulation, blood pressure, and the ductless glands, are especially good and something every practitioner of medicine should read. It is easy and delightful reading, and we can heartily recommend it to our friends. W. J. W.

Principles of Hygiene. For Students, Physicians, and Health-Officers. By D. H. BERGEY, M.D., First Assistant, Laboratory of Hygiene and Assistant Professor of Bacteriology, University of Pennsylvania. Fourth edition thoroughly revised. Octavo of 529 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, $3.00, net.

Dr. Bergey's Principles of Hygiene is favorably known to the medical profession and needs no flattering introduction to them. We esteem it so highly, that we would like to see it popularized; there should be a copy of the book in the library of every newspaper of this country. Owing to the discarding of the obsolete, the fourth edition is just a little less bulky than the second one—a good fault. In reference to the prevention of typhoid fever, we note, in the book, an extract from the report of Major Russell to Congress, in which a narrative is

given of the immunization of Company H. First Battalion of Engineers, United States Army, against typhoid fever; notices of successful experiments of this kind made on German troops in South Africa are also given. As in previous editions, quarantine is treated at great lengths, fifty-four pages out of a total of five hundred and twenty-nine, having been devoted to this branch of the subject. There are some sixty odd figures in the book. The publisher's work has been well done.

J. J. C.

Exercise and Health. By Woods Hutchison, M.D. New York: Outing Publishing Co.

Six clever chapters on "Errors," "Athletics," "Muscle," "Occupation," "Danger," "Exercise that Rests," comprise this new book, which is markedly original both in expression and in point of view. There are a few sentences in the book the value of which are much more than the cost of the book, such as: "Men who are well rested, well fed and clear-headed will do more work in all ranks of life in eight hours than they will in ten, and in ten than in twelve." "Stop short of real fatigue, at least the degree that is accompanied by any marked discomfort." "It makes no difference how light and apparently trifling the exercise may be: so long as it keeps you pleasantly occupied in the open air it will do you good." The book is sensible, practical and pleasant to read.

H. M'M.

"Home Nursing." By C. F. Wightman, F.R.C.S., London: George Gill & Sons, Ltd., 13 Warwick Lane.

This is essentially a manual as to how home nursing should be done. It is divided into 11 chapters, and contains a lot of information, all for nine pence.

A Doctor's Table Talk. By James Gregory Mumford, M.D., Lecturer on Surgery in Harvard University, Etc. Boston and New York: Houghton Mifflin Company. The Riverside Press, Cambridge, 1912.

We have not run across any book for a long time that will wile away one or two of the dark winter evenings as this volume will do.

The author has dedicated the book "To S. Weir Mitchell, great physician and beloved man of letters." The fictitious persons described in the volume have no prototypes, but are composite studies. Our readers will understand the interest we have taken in the book when we state that some of the chapters are entitled as follows: The Doctor's Habitat; Doctor and Patient; Some Doctors and their Troubles; Dr. Primrose on Women; the Doctor as a Patient; Hospital Talk, etc.

Buy "A Doctor's Table Talk"—it is worth more than the price charged. W. A. Y.

Prescribers' Formulary and Index of Pharmacy. By Thomas P. Beddoes, M.B., F.R.C.S., England. London: Bailliere, Tindall & Cox, 1912.

This pocket book will be found useful by the practitioner, supplying him with information that he may be likely to need at the time the prescription is written.

The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine by Sir William Osler, Bt., M.D., F.R.S., Fellow of the Royal College of Physicians, London; Regius Professor of Medicine, Oxford University; Honorary Professor of Medicine, Johns Hopkins University, Baltimore; formerly Professor of the Institutes of Medicine, McGill University, Montreal, and Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia. Eighth Edition, largely re-written and thoroughly revised with the assistance of Thomas McCrae, M.D., Fellow of the Royal College of Physicians, London; Professor of Medicine, Jefferson Medical College, Philadelphia; formerly Associate Professor of Medicine, Johns Hopkins University. New York and London: D. Appleton & Company. 1912.

It will interest our readers to know that Sir William Osler has dedicated his eighth edition to "William Arthur Johnson, Priest of the Parish of Weston, Ontario, James Bovell, of the Toronto School of Medicine and of The University of Trinity College, Toronto, Robert Palmer Howard, Dean of the Medical

Faculty and Professor of Medicine, McGill University, Montreal."

It is now twenty years since the first edition of Osler's Medicine appeared, and during that time each edition has been better than its predecessor. The great advantage of this particular work is that it is not, as too many medical works are to-day, *viz.*, a rehash of what can be found almost everywhere: but on the other hand the book represents "my personal experience in hospital and private practice." That is why Osler's Medicine is looked upon to-day as one of the best in print. The eighth edition is the seventh thoroughly revised, Sir William Osler having always esteemed it a pleasure and an ambition to keep his books right up to the minute. The infectious diseases have been grouped in different order, and the chapters on typhoid and typhus fevers, pneumonia, tuberculosis and syphilis, contain a great deal of new material. W. A. Y.

A Text-Book on the Practice of Gynecology. For Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Fifth Edition, thoroughly revised. Octavo of 1100 pages, with 1,050 original line drawings. Philadelphia and London: W. B. Saunders Company, 1912. Cloth $6.50, net; Half Morocco, $8.00, net. W. B. Saunders Company, Philadelphia, London. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

It is but seven years since the first edition of this work was published, so that there is no question as to the manner in which the authors work has been appreciated. The author takes nothing for granted in describing diseases or their treatment—so that he speaks in no uncertain manner—from actual experience.

The fifth edition has been thoroughly revised, the sections devoted to etiology, pathology, and treatment having been materially changed. He describes a number of new operations, and has practically re-written preparatory and post-operative methods. In the palliative treatment of cancer, Dr. Ashton advises the use of acetone and sulphate of quinine, discusses the free use of drinking water with meals in the treatment of constipation and refers to the frequency of colon bacillus as a

causative factor in cystitis and its treatment. He also goes into the use of the X-ray in the treatment of fibroid tumors of the uterus.

Obstetrics, a text book for the use of students and practitioners. By J. Whitridge Williams, Professor of Obstetrics Johns Hopkins University; Obstetrician-in-Chief to the Johns Hopkins University; third enlarged and revised edition, with sixteen plates and six hundred and sixty-eight illustrations in the text. New York and London: D. Appleton and Company. 1912.

Professor Williams, in presenting the third edition of his book to his confreres, hands them what is tantamount to a new volume. Some books are considered revised if a chapter here or there has been looked over and brought up to date. Not so in this case, the author having gone over his book "line upon line and precept upon precept." All one has to do to find this out is to glance through sections two and three devoted to "the Physiology and Development of the Ovum," and " The Physiology of Pregnancy." The chapters dealing with contracted pelvis and the treatment of labor complicated thereby are splendid.

Surgery of the Brain and Spinal Cord. By Professor Fedor Krause, M.D., Gen. Medizinalrat dirigierender Arzt am Augusta Hospital zu Berlin; English adaptation by Dr. Max Thorek (Rush M.C. University of Chicago); Surgeon in Chief American Hospital, Chicago, Ill.; Consultant Cook County Hospital, Chicago, Ill.; Ex-Professor of Surgery, Bennet Medical College (Pres. Loyola University), Chicago, etc., etc. Volume II., 15 plates and 94 figures; 819 pages. New York: Rebman Company, 1123, Broadway. Price, $7.00. 1912.

The first half of this second volume of Professor Krause's work is devoted to the consideration of the different varieties of epilepsy. Several cases are reported in which operation was performed for the Jacksonian type of this condition, many of which showed very marked improvement, both mentally and physically. The results of surgical treatment of general epil-

epsy are also considered, and illustrative cases quoted. Marked improvement has followed operation in only a small proportion of these latter cases. The writer is of opinion that as a rule surgical treatment is urgently indicated in every case of traumatic epilepsy, in spite of the fact that the prognosis is unfavorable. The symptomatology and localization of tumors of the brain are then dealt with, and Professor Krause states that since the appearance of his first volume he has removed cerebral tumors by means of suction in a number of cases. He describes this method in detail. This chapter also deals with removal of tumors of the hypophysis for the relief of acromegaly. H. A. B.

Pellagra, History, Distribution, Diagnosis, Prognosis, Treatment, Etiology. By Stewart R. Roberts, S.M., M.D., with eighty-nine special engravings and colored frontispiece. St. Louis: C. V. Mosby Company. Price, $2.50.

Pellagra has during the past two years created great interest in the United States, for many cases have been reported. So far no cases have appeared in Canada.

Roberts deals with pellagra in such a thorough manner that his work will prove of great interest to all. The illustrations are good. This book can be highly recommended as a complete knowledge of this interesting disease is given. D. K. S.

Trépanation Néolithique, Trépanation Pré-Colombienne, Trépanation Des Kabyles, Trépanation Traditionelle; par la Dr. Lucas Championniere; Membre de l'Institut (Académie des Sciences); Chirurgien Honoraire de l'Hôtel Dieu; Membre de l'Académie de Médecine; Ancien Président de la Société Internationale de Chirurgie. 131 pages; 32 figures. Paris: G. Steinheil, Éditeur, 2, Rue Casimir-Delavigne, 2. 1912.

This volume forms the first part of a historical study of trepanation, and the writer emphasises the extreme value of such researches in connection with medical and surgical subjects. He has employed trepanation in the most various conditions, including inoperable tumor, meningo-encephalitis, cerebral syphilis, idiopathic epilepsy, cerebral hemorrhage, hydro-

cephalus, etc. The results of his researches indicate that it was practised in prehistoric times with the object of influencing the nervous system, dating back to the Neolithic period, and that in these times it was an extremely common procedure. In comparing the ancient operation with that practised in modern time he expresses his surprise that surgery, with the greater facilities at its command, has not made more advances. H. A. B.

Text-Book of Anatomy and Physiology for Nurses. By Elizabeth R. Bundy, M.D., Member of the Medical Staff of the Woman's Hospital of Philadelphia; Gynecologist New Jersey Training School, Vineland; formerly adjunct Professor of Anatomy, and Demonstrator of Anatomy in the Woman's Medical College of Pennsylvania; formerly Superintendent of Connecticut Training School for Nurses, New Haven, etc. Second edition revised and enlarged. With a glossary, and 215 illustrations, 42 of which are printed in colors. Philadelphia: P. Blakiston's Son and Co., 1012 Walnut Street. 1913.

This second edition has been thoroughly revised and will be found to contain an amount of information which is essential for the graduate nurse. It is well illustrated and undoubtedly will serve a useful purpose as a book of reference and study for the nurse during training. A. P.

The Physicians' Visiting List. Philadelphia: P. Blakiston's Son and Co. 1913.

This very useful method of bookkeeping still maintains its excellence, and is in the 62nd year of its publication. Prices from $1.25 to $2.50, according to capacity, which runs from 25 to 100 patients per day of week. J. T. F.

A Text-Book upon the Pathogenic Bacteria and Protozoa. For Students of Medicine and Physicians. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia, Professor of Pathology in the Woman's Medical College of Pennsylviana; Pathologist to the Philadelphia General Hospital and to the Medico-Chirurgical Hospital, Philadelphia; Director

of the Laboratories of the Henry Phipps Institute; Fellow of the College of Physicians of Philadelphia, etc. With 293 illustrations, a number of them in colors. Seventh edition, thoroughly revised. Philadelphia and London: W. B. Saunders Company. 1912.

The fact that a seventh edition of this work has been called for, speaks for itself and shows that it has been appreciated, and forms a very useful guide to the study of Pathogenic Bacteria and Protozoa. A very clear and useful chapter is included on the subject of Immunity, and throughout the volume valuable information is given concerning methods which are essential for the proper study of these organisms in the laboratory. The book is written in a lucid style and is well illustrated, and will be of great service to students and practitioners. A. P.

Surgery of the Brain and Spinal Cord. By Professor Fedor Krause, M.D., Geh. Medizinalrat Dirigierender Arzt am Augusta Hospital zu Berlin. English Adaptation by Dr. Max Thorek; (Rush M.C. University of Chicago); Surgeon in Chief American Hospital, Chicago, Ill.; Consultant Cook County Hospital, Chicago; ex-Professor of Surgery, Bennet Medical College (President Loyola University) Chicago, etc., etc. Volume III. 1201 pages; 42 figures (3 colored) in the Text, and 47 colored figures on 22 plates. New York: Rebman Company, 1123 Broadway. Price, $7.00 net.

The first section of this volume is devoted to the consideration of tumors of the brain and their treatment, special attention being given to neoplasms of the Gasserian ganglion, the various methods of extirpation of which are described in detail. He states that he has removed the ganglion in more than seventy cases of trigeminal neuralgia, and gives a description of the technique which he has employed. He finds that the various modifications of this technique which he has tried from time to time are no improvement on the original operation. This section of the book includes otitic and rhinitic abscesses, and concludes with a chapter on traumatism of the brain. The second portion of the book, which deals with the surgery of the spinal cord, commences with a description of the technique of laminectomy

and of the preparation of the patient for it, the after treatment being dealt with in the last chapter of the book. Amongst the spinal conditions referred to are tumors, with their symptoms, etiology, diagnosis and treatment, special attention being given to the present position of our knowledge in regard to the diagnosis of the level at which the lesion is situated. Cases illustrative of the various conditions are given. The excellence of the illustrations and the scrupulous attention to detail in regard to operative technique, render this volume, as well as the two which have appeared previously, valuable additions to the literature of this branch of surgery, and they should be in the library of every surgeon who is interested in the surgery of the brain and spinal cord.

H. A. B.

GRAPE JUICE IN THERAPEUTICS *

The majority of the profession know of the so-called Grape Cure establishments existing in Switzerland, Germany and other countries. Such establishments have of recent years become quite popular, as there is no doubt that it has been established that many forms of gastric and intestinal trouble can be cured by such treatment. That Grape Juice can be a valuable therapeutic agent, there is little doubt. There is perhaps nothing quite as refreshing to the fevered patient as Grape Juice properly administered. This is especially the case in the warm weather, when it can be served with ice. Grape Juice, properly prepared, and bottled with the care as used in the laboratories of Mr. E. D. Smith, Winona, Ontario, contains undoubted medicinal qualities, being not only exceedingly refreshing and invigorating, but mildly stimulating in character. Cases are known of typhoid fever, where no medicine has been used outside of Grape Juice, with favorable results. The attention of the medical profession is called to the Grape Juice bottled by Mr. E. D. Smith, and medical practitioners can rest assured that when they prescribe this particular brand for their patients they can make no mistake. Smith's Grape Juice sells at as low a price as any other on the market, notwithstanding the fact that it is superior to, at least, many.

* Publisher's Department.

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Listerine is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

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Occasions frequently arise when the practitioner must support the heart in order that brief periods of great stress or over-taxation may not result in permanent disability. For instance, during febrile attacks, or at moments of great mental shock, the heart's action is often temporarily embarrassed. At such times a dependable cardiac tonic is needed, and for a good many years Cactina Pillets have been employed by thousands of physicians with the utmost satisfaction.

This carefully prepared preparation of cereus grandiflorus has been found to give the tired heart the exact support and bracing effect required to enable it to meet safely and without discomfort sudden and unexpected drafts on its functional capacity. In the presence of cardiac palpitation, irregular action, tachycardia, or the various other symptoms pointing to fatigue and functional weakness of the heart, Cactina Pillets afford prompt relief and rapidly remove the patient's apprehension and fear. Indeed, it is not unusual for a patient to run the whole gamut of the customary heart remedies without the slightest benefit until he is placed on Cactina Pillets. There can be no question that this remedy is especially effective in the cardiac neuroses and it has the great advantage that it can be used without a single fear of any idiosyncratic or untoward effect, or cumulative action, no matter how long or continuously it may be administered.

The practitioner who familiarizes himself with the virtues of Cactina will be gratified to learn the extent to which he can rely on this valuable remedy as a heart regulator and support. And the more he uses it the more he will see that Cactina is not a spur or a goad, but a thoroughly dependable tonic and prop.

A FOOD TONIC

For a period of over twenty years, Bovinine has been known and extensively employed by medical men. Bovinine represents the highest quality in its ingredients and the highest skill in its combinations. Special preliminary processes of preparing the various constituents, as well as of compounding them, unite to produce a food and tonic of uniform strength and physiological action.

Careful investigation of the action of Bovinine shows that it acts, primarily, by stimulating the digestive and absorptive processes, and by imparting tonicity to the whole nervous system. The hepatic and the various secretory functions are increased, and a more substantial assimilation of nutriment follows as a natural sequence, and it gives to the system every element required to properly sustain it. In other words, proper balance between waste and repair is brought about. Every organ and tissue shows improvement in the functional activity of its cells, and the accumulation of vital energy is tangibly shown in an increase of resistance and a lessened susceptibility to disease and improved blood standard. Nerve force is likewise increased, and the whole nervous system shows greater resistance to the depressing influence of mental wear and tear.

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that vast army of those who call on their Doctor, complaining of the various well-known symptoms of caffeine-poisoning, frequently cause the Doctor no end of annoyance, unless he INSIST, at the start, that the patient quit tea and coffee.

Even if the Doctor follows safe procedure and interdict tea and coffee, it is often difficult to secure obedience.

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Canadian Postum Cereal Co., Ltd., Pure Food Factories, Windsor, Ont.

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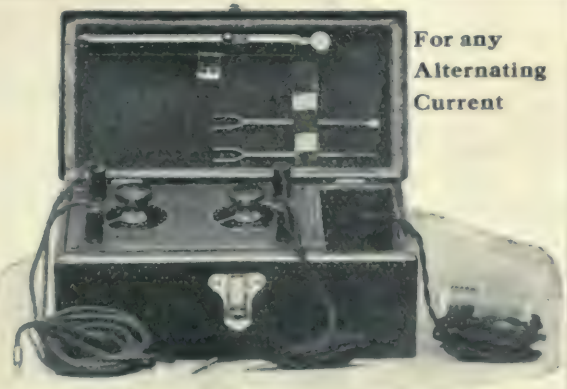

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BY E. J. WUNDERLICH, M.D., LOUISVILLE, KY.

To cure a parasitic disease we must kill the parasites which cause it. In eczema these are hidden in the superficial layers and covered by the scabby crusts. These latter can best be removed with warm water and resinol soap. This must be done as fast as they form. Then the remedy can be applied to the clean surface.

A multitude of remedies are used in this disease, but, in my experience, the balsams are by far the most satisfactory. Among these are several good preparations; the one which has given the best results in my hands is Resinol. In the great majority of cases, the ointment of resinol is the only application necessary.

After the part has been cleansed, I apply it liberally to the raw surface and cover with a bandage; this is renewed two or three times a day. When the part is "weeping" very copiously, enough starch powder or calcined magnesia may be mixed with the ointment to form a very thick paste. This is used in the same manner as the ointment until the exudation ceases, when the pure ointment is used, or employ a dusting powder, composed of equal parts of starch, talcum and subnitrate of bismuth, to be applied as frequently as may be necessary to absorb the moisture.

FRENCH LICK WATER

French Lick Springs are of the same class and are very similar in character to those of Carlsbad and Marienbad, where mineral water treatment has attained its greatest reputation. They differ from the waters first mentioned chiefly in temperature and to a very slight degree in the proportioning of their constituent elements; the indications for their employment are identical and when used intelligently they will yield equally good results. Other foreign springs bearing more or less resemblance to these waters are those of Baden Baden, Kissingen, Tarasp and Homburg.

There are at French Lick three different mineral springs, known as Pluto, Prosperine and Bowles. The constituents are practically the same in all three, although they vary considerably in strength, and all come within the classification of what are known as sulpho-alkaline waters, the principal elements being the sulphates of soda, magnesia and lime, carbonate of magnesia and chloride of soda.

In addition to these salts, they also contain considerable quantities of two important gases—carbonic acid and sulphuretted hydrogen. The former gives them their sparkling appearance and adds to their palatability, and to the latter is due their characteristic odor and their well-known incompatibility with alcohol. They are perfectly clear; have a uniform temperature of 55° Fahr. at all seasons, and their taste is slightly bitter, with a faint suggestion of salt.

The Germicidal Power of Wulfing's Formamint

Experiments Carried Out in the Physiological Laboratory of Dr. Piorkowski, Berlin

The interesting experiments depicted here must carry conviction to every open mind. They were made with a bacillus which is well-known to scientists as one endowed with exceptionally great powers of resistance. This hardiness makes the results all the more convincing. The illustrations are reproduced from actual photographs of the experiments, showing the growths obtained on sterilized potatoes which had been inoculated with the bacillus prodigiosus. This particular medium was selected for the reason that the bacillus prodigiosus produces on it a growth of rich blood-red color, and any variation in the growth is easily discernible.

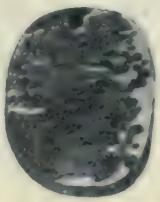
Fig. 1 shows the unsterilized potato with the natural abundant growth of this bacillus—deep blood-red velvety vegetation, familiar to all bacteriologists.

Fig. 2 shows a potato which had been treated with a small portion of human saliva in which *one* Formamint Tablet had been dissolved. The bacillus has failed to grow beyond the actual lines of inoculation made by drawing the infected platinum wire across the surface of the potato.

Fig. 3 shows a growth inoculated in precisely the same manner, but the development of the bacillus has here been checked by the previous application of a little human saliva taken after *two* Formamint Tablets had been sucked. The growth is restricted to a very small part of the potato and is broken up, showing the feeble development.

Fig. 4 shows that the growth of this resistant microbe has been absolutely prevented by the previous application of saliva taken after *three* Formamint Tablets had been sucked. Nothing except the scratch marks made by the platinum wire on the plate is visible. Not a bacillus out of the thousands inoculated has been able to survive the sterilizing effect of Formamint.

These illustrations show the growth of the Bacillus Prodigiosus inoculated on a potato, and its subsequent destruction by Formamint.



1. Without the use of Wulfing's Formamint. Germ growths very luxuriant.

2. Before inoculation this potato was treated with saliva in which *one* Formamint Tablet had been dissolved.

3. Further destruction of germ growths owing to the use of two Formamint Tablets.

4. After disinfection with saliva in which *three* Formamint Tablets have been dissolved. Germ-growths totally destroyed.

Wulfing's Formamint alone has this powerful germicidal action. None of its various imitations possess this property; in fact, there is no evidence in medical literature to prove their reliability. The reason is that Wulfing's Formamint is the only throat tablet in which the germicide is locked up securely within it until the moment when it comes in contact with the saliva, so that it is liberated from the chemical combination in the nascent state, when its chemical energy is greatest.

Samples and literature sent, free, to the Medical Profession on application to Messrs. A. Wulfing & Co., 12 Chenies Street, London, W.C.

"MUDLAVIA"

The natural combination of remedial agents, as found at Mudlavia, Kramer, Ind., cannot be duplicated elsewhere. There is absolutely no other "just as good." The essential foundation of the treatment is the right mineral water, and the right moor mud, in exactly the right place. The formation of the mud deposit is a marvelous coincidence, unlike anything discovered in any other spot on earth. For centuries the group of cure springs, located on the hill side has poured out its waters, which have slowly percolated through a rich vegetable hume lying in the valley below it. This deposit, though commonly known as "mud," is, in fact, a pure earth, soft as silk, soluble as sugar, and without any grit or sand in its composition. In physical properties it differs from the soil of any other known region, to say nothing of its rare medicinal virtues.

Such an entire poultice as the mud pack is, has several other marked advantages over the water-bath relied upon elsewhere; the patient can endure a greater heat, the mud retains its heat longer, the minute particles of the mud (visible under a magnifier) stimulate the skin, and the mud holds the patient in a firm yet gentle and restful embrace. It is these cumulative merits of the Mudlavia mud that so often effect a cure otherwise impossible.

Physicians interested in "Mudlavia" can obtain a booklet and full information by writing to the Medical Superintendent Mudlavia, Kramer, Indiana.

TIGER BRAND UNDERWEAR

Remarkable strides have been recently made in the manufacture of "Tiger Brand" Underwear, by the installation of new machinery, and facilities for the handling of this populer line. Special machinery has been added for the cleansing of raw material, thereby removing any foreign matter, which might, under old systems, accumulate in the cloth.

A largely increasing branch of this business, is the Combination or Union Suit, which is made in a variety of weights and qualities, and which is meeting with a very large sale throughout the entire country. Consumers who want underwear comfort should buy "Tiger Brand," both in union and two-piece suits, and which are on sale with all first class dealers.

"ACADEMY OF MEDICINE" MILK

It is worthy of note that the proprietors of Price's Dairy, Toronto, were the first firm of milk dealers to receive permission to use the seal of The Academy of Medicine, Toronto. This means that the milk of this concern, as supplied to the Toronto public, was found to be fully up to the standard as laid down by the Academy of Medicine Milk Commission. This is certainly an endorsement of no mean order, and should satisfy the medical profession that milk as bottled by Erindale Farm (Price & Sons) is clean, rich, and free from the semblance of adulteration.

BOVRIL

AND DIGESTION

In cases where milk is not tolerated, it has been found that if a small cup of Bovril is taken first, the milk is easily digested. Bovril aids the digestion and assimilation of food. (See The British Medical Journal, Sept. 16th, 1911).

(*Ung. Iodi, "M.&J."*) **IODEX** (*For External Use*)

Contains 5 per cent. of IODINE (therapeutically free) in a neutral base. In pots, price 35 cents

Distinctive Characteristics { DOES NOT STAIN OR IRRITATE THE SKIN. IS ABSORBED WITH GREAT RAPIDITY. IS ENTIRELY FREE FROM SOLVENTS SUCH AS ALKALINE IODIDES, ALCOHOL OR GLYCERINE.

IODEX entirely solves all difficulties hitherto connected with external use of Iodine.

IODEX presents Free Iodine in its highest therapeutic activity.

IODEX is indicated in: RHEUMATISM, GOUT, ARTHRITIS, SYPHILIS, TUBERCULOUS and SWOLLEN JOINTS, ENLARGED GLANDS, RINGWORM, CHILBLAINS, and ALL INFLAMMATORY CONDITIONS

Samples and Literature Sent on Application.

MENLEY & JAMES Ltd., of Canada, 337 Craig St. West, Montreal

UNGUENTINE IN BURNS

Dr. Downs' article on the use of Unguentine in a burn from steam calls to mind two cases in which I received the best results by the use of the same article. My first experience with it was treating a wound caused by an operation for the removal of a fatty tumor over the right shoulder blade in a lady that was to a degree scrofulous. The surgeon made his incision perpendicularly over the tumor, the consequence being an impossibility to hold the parts together, the least motion causing a tearing loose. She was two years trying first one physician and then another and from one school to another. Finally she wrote me, asking me to meet her and go with her to some surgeon in Chicago. I made her the proposition that she allow me to treat the wound three weeks. If I did no good she should have her treatment for nothing, including board at my home; if I cured her, she to pay me the same fee she had others. I accordingly applied Unguentine, changing night and morning. Result, a perfect healing by granulation in two weeks, and no eschar.

My second case was that of a lady whose entire right arm ignited while cleaning a pair of suede gloves drawn on the hand and arm—a terrible burn, reaching from the tips of the fingers to the shoulder joint. Unguentine, first and last for three weeks, healed it with absolutely no pain in the interim and also no eschar.—Frank A. Barber, M.D., Chicago.

A HEALTHY BEVERAGE

The Postum Cereal Company recently received the following letter.—"I have just begun the use of Instant Postum and must take a moment to tell you how delighted I am with it.

"For the past seven years I have been using Postum Cereal, and thought that was pretty good, but Instant Postum has it beaten out of sight.

"When I was drinking my cup of Instant Postum this morning, it made me think I was in Post Tavern enjoying a cup of Postum Cereal as they know how to prepare it there.

"The public is indebted to you for having put Instant Postum on the market."

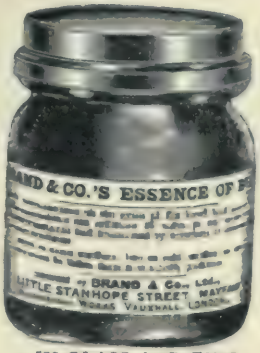
BOVRIL: ITS BODY BUILDING POWER

It is the little things that count in real nutrition, as microbes count in real pathology. Small quantities of an iodine compound synthesized in the thyroid, or of another unique product from the adrenal, another from the pituitary, another from the testis or ovary, make all the difference between intelligence or idiocy; normal blood pressure or vascular paresis, etc. The essentials of nutrition are, therefore, clearly dependent upon minutiæ, and there is probably some analogy between the action of the secretion of special glands and the action of Bovril. Physiologists have suggested in this way an explanation of the body-building power of Bovril, demonstrated by Professor Thompson at the Dublin School of Physiology, to be twenty times that of the quantity of Bovril consumed.

BRAND'S

ESSENCE OF BEEF AND OF CHICKEN

For Exhaustion and Weak Digestion



The Best Restoratives After Loss of Blood From Any Cause

IN GLASS AND TINS

BRAND'S Essence contains no added condiments or stimulants. It is a pure meat essence in the form of a very delectable golden-coloured jelly, pleasant to take, and easy of assimilation by the most delicate digestion.
MEAT JUICE, and other Invalid Delicacies.

BRAND & CO., LIMITED, MAYFAIR, LONDON, ENGLAND
NEWTON A. HILL, 25 Front St. East, Toronto. H. HUBBARD, 27 Common St., Montreal

Knorr's Consomme -Cubes-

Each cube one cup.
"Ready in a minute."

If you like the

Consomme

try

KNORR'S

SOUP SQUARES
and
MIXED VEGETABLES

At your Grocers

MAKE A SPECIALTY OF GARAGING PHYSICIANS MOTORS

The attention of the readers of this issue of the Canadian Journal of Medicine and Surgery is called to the advertisement of The Gibson Electric, Ltd., 517 Church Street, Toronto. This firm has recently been organized, and has taken over the old Church Street Rink, just north of Wellesley Street. This splendid building, comprising well on to 20,000 square feet of floor space, has been turned into one of the finest garages in any city in Canada. It is lit on all sides, and at night is brilliantly illuminated with arc lights. The Gibson Electric, Ltd., have decided to place themselves at the disposal of physicians who have no time to be running back and forward from a public garage, by being prepared to make contracts to garage, wash, polish, charge, deliver, and call for once a day, an electric runabout for the modest sum of $35.00 a month. This figure, also includes minor adjustments and repairs. An expert electrician is in charge, night and day, so that every battery receives individual care and attention. The firm also keep a first class mechanic and tire hand; all repair work being attended to on the spot; and for every dollar charged, a dollar's value is given. In addition to electric cars, gasoline cars of any size are looked after at very moderate figures.—Doctor, nuf sed.

PASTEUR TREATMENT

Dr. H. M. Alexander & Co., whose biological laboratories are at Marietta, Pa., recently introduced an exceedingly simple method for the administration of the Pasteur Treatment in the prevention of rabies. With this method, it is possible for the family physician to administer this treatment as it is simply an ordinary hypodermic injection. The vaccine is prepared by experts in one of the best equipped laboratories in America. Each dose is shipped daily in a ready-to-use container. All orders can be wired to Marietta, and each one will be filled promptly on receipt of message.

HYPERTROPHIED PROSTATE ARRESTED

Increased urinary frequency, chiefly nocturnal in character, is the earliest and most frequently encountered symptom of enlarged prostate. Many cases of hypertrophied prostate might never develop beyond this point if sanmetto was administered as a prophylactic, and the discomfort of rising two or thre times at night to urinate, to say nothing of entering upon a catheter life, might be avoided.

This is especially in the chronic prostatic hyperplasia which we find in old men always associated with chronic vesical catarrh, that sanmetto gives the most brilliant results. Numbers of cases can be recited in which the use of sanmetto alone has not only relieved the vesical irritability, but has seemingly reduced the hypertrophy of the prostate and enabled the patient to dispense with catheterization and micturate unassisted for the first time in years.

"Expels without discomfort to the patient the poisonous toxins that form in the alimentary canal and is of particular value in the treatment of febrile conditions."

Wyeth's

GRANULAR **Salinates** EFFERVESCENT

SUPPLIED IN SEALED BOTTLES
CONTAINING 1-4 LB. AND 1 LB.

PREPARED BY

JOHN WYETH & BROTHER

INCORPORATED

Manufacturing Pharmacists, PHILADELPHIA, PA.

PHENALGIN IN LEPROSY

Calcutta, India, 18-8, 1909.

To the Etna Chemical Co., 313 West St., New York, N.Y.—

Dear Sirs,—For the past two years or more I have been using your Phenalgin in my prescriptions for fever, rheumatism and leprosy, the last of which I make a specialty, having made a life study of the disease. I have found Phenalgin a very valuable adjunct to my specific for leprosy, which is practically a species of Multiple Neuritis, in which "pain," hyperesthesia, anesthesia, "hyperemia," "congestion," and gangrene, "the moist variety," are some of the chief features. The pain, hyperesthesia, hyperemia and congestion are always present in leprosy, and anesthesia, which is practically due to secondary or symptomatic anemia, is generally present above the seat of congestion. The mutilans stage is nothing more or less than moist gangrene, congestion.

Yours truly,
A. L. Baldwin, M.D., E.P.C., C.M.P.

A DOCTOR'S MOTOR CAR

It would be well for any Physician considering the ordering of a motor car to look into the suitability of the R. C. H., as sold by the Virtue Motor Sales, 465 Yonge St., Toronto. The R. C. H. is one of the best Runabouts that can be sold for the money, all the cost being but $850.00 f.o.b., Windsor. The manufacturers have spared no effort to turn out a car that has been fully tested, every part being manufactured under expert mechanics' supervision. This car is fully equipped, with a wind shield, top, gas lamp and generator. The motor is four cylinder, 3¼-inch bore with a 5-inch stroke. The control is a centre lever and the wheel base is 86 inches. Doctor, call and see Mr. Virtue at the above address before purchasing elsewhere.

RIVER CREST SANITARIUM

This is an institution for the treatment of nervous and mental diseases, as also alcoholic and narcotic habitues. River Crest Sanitarium is situated on Long Island, New York City, and is in every respect home-like. It is not a public institution, but essentially a private retreat. The Sanitarium is made up of nine modern buildings for patients, situated in a beautiful park covering thirty acres. The Sanitarium is very easily reached, the train service being excellent. There are detached buildings for alcoholic and drug cases. Hydrotherapy, electrotherapy and massage are administered to patients as required. The amusement of patients is well looked after, there being weekly dances, a golf course, bowling alleys, tennis lawns, etc. Canadian physicians desiring a home-like retreat for their patients, where they will be well looked after, should write to the Physician-in-Charge for full particulars.

Doctor!

You are aware of the fact, of course, that
PURE WATER IS A NECESSITY.

For the sake of your patients, permit us to suggest that, when ordering water whether it be for flushing the kidneys, stimulating a sluggish liver or eliminating waste matter from the system, you specify

McLaughlin's Hygeia Distilled Water

It is as pure as the sunbeam. It contains no germs, no fungi, no lime, no alkali, no salts. It is just pure water. Doctors will be interested to know that we have now identified with our firm Wm. P. Kaufmann, M.D., C.M., Tor., Univ., a fully qualified medical practitioner who has full charge of our laboratory—We also boast of the finest bottling plant on the continent so that everything (including our bottles) is strictly hygienic.

Please remember the name of our distilled water, **Hygeia.**

J. J. McLAUGHLIN, Limited
Manufacturing Chemists
OTTAWA——TORONTO——EDMONTON

"remember it should be moist and it should be hot" was the final dictum of a well known Neurologist in referring to the treatment of Neuritis.

Antiphlogistine has proven the most serviceable, satisfactory and convenient form of utilizing heat and moisture as a therapeutic agent, and since heat must be continuous to be effective, the advantages of this well known product are forcibly apparent. It holds its thermic value for hours without subjecting the patient to the annoyance and danger of exposure by frequent dressings.

Heat, by encouraging Leucocytosis and Hyperemia, as well as reducing stasis in the part to which it is applied, indicates the employment of Antiphlogistine in the following inflammatory conditions:

Antiphlogistine

Abscesses, Adenitis, Boils, Bronchitis, Bubos, Carbuncle, Cellulitis, Epididymitis, Inflammatory Rheumatic Joints, Intercostal Neuralgia, Lumbago, Lymphangitis, Mastitis, Myalgia, Orchitis, Ovaritis, Paronychia, Parotitis, Pharyngitis, Phlegmon, Pleuritis, Pneumonia, Prostatitis, Quinsy, Sprains, Synovitis, Tendo-synovitis, Tonsillitis and Uterine Inflammation.

Antiphlogistine should be applied thick and hot and well protected by suitable covering.

RICH IN SOLUBLE NITROGENOUS EXTRACTIVES

THE attention of medical practitioners is called to a preparation of comparatively recent manufacture, and registered under the name of Panopepton. It is a product of the laboratory of Messrs. Fairchild Bros. & Foster, of New York. Panopepton has qualities and characteristics which distinguish it from all other foods. There is no other food that contains 22 per cent. of soluble solids with a nutritive balance of 1 of proteins derived by physiological hydrolysis to 2 of carbo-hydrates derived by pancreatic hydrolysis of cooked farinaceous substance; no other food whose constituents are in the particular non-coagulable, highly diffusible and wholly assimilable form characteristic of Panopepton. Panopepton is also peculiarly rich in those soluble nitrogenous extractives which are believed to stimulate the various secretions concerned in digestion and metabolism. Panopepton is absolutely free from cane sugar or any artificial sweetening; has a wholesome characteristic flavor, savory and stomachic qualities, due to the blend of the basic materials from which it is derived—beef, wheat and genuine fortified Spanish Sherry Wine.

IN NERVOUS DISEASES

IN the weakness and lassitude incident to many nervous and mental diseases, Horlick's Malted Milk makes an excellent reconstructive. It has no tendency to constipate or produce a bilious condition like ordinary milk, but is easily digested and assimilated, satisfying every nutritive need of the system. It contains a due proportion of muscle, bone, nerve and brain-building food elements, derived from the best natural sources, and so prepared as to be readily utilized by the system in a physiological manner. It lends itself, also, admirably to the idea of forced feeding in neurasthenia and other nervous diseases, because a glass of it may be taken at short intervals throughout the day without causing any distress or discomfort. When sipped hot upon retiring, its soothing effects are appreciated by nervous invalids, as it helps to bring about refreshing sleep.

SANOL'S ANTI-DIABETES

THE manufacturers of this preparation are anxious to introduce it to the notice of the medical profession all over Canada and the United States, as an effective means of treating diabetes. The Company are very particular in seeking only the most legitimate channels through which to introduce this article. Physicians will find that it will neutralize the diabetic poison and materially assist in abating the sugar secretions. The persistent and annoying thirst associated with this disease disappears shortly after the remedy has been used, and a general marked improvement will be found in almost every case. Of course a special diet has to be carried out, in order to obtain good results. The Company will be pleased to forward literature to any Physician mailing his card to their address in Winnipeg.

The Surest Kind of Medication

The National Way of Making National Fluid Extracts :: ::

assures to the Medical Profession the surest kind of medication.

National Fluid Extracts are medicinal concentrates of guaranteed uniformity.

Every ounce of National Fluid Extracts contains the virtue of an ounce of the crude drug, and all inert matter is eliminated.

There are about 275 different lines of National Fluid Extracts, and all are made with the same attention to quality of drug employed and careful manipulation, as bestowed upon

National Fluid Extract of Ergot

which is enjoying such an enviable reputation among Physicians all over Canada.

PLEASE NOTE: A list of all the products of the **National Central Pharmaceutical Laboratories** and **National Chemical Works** will be sent upon application to

Advertising Manager,

NATIONAL DRUG & CHEMICAL CO.
OF CANADA, LIMITED

Montreal :: :: :: :: Canada

THERAPEUTIC USES OF VICHY NATURAL MINERAL WATER

No natural water has ever been made the subject of such exhaustive clinical study as that of the Vichy Springs, and it owes its reputation, not to a simple popularity due to its pleasant taste, but to a fame resulting from the crucial test of centuries of clinical observation.

It has been noted that the three springs are very similar in their chemical composition. In practice, it is found that the water of Celestins is especially indicated in disorders of the kidneys, and such as depend upon the uric acid diathesis; rheumatism, gout, gravel, and cutaneous lesions, such as eczema, etc. The Grande-Grille water is deemed to be especially efficacious in stomach and liver disorders, while the Hopital spring is useful in the same way, but is somewhat milder and slower in its action than either of the others.

In gastric and intestinal indigestion the use of Vichy secures a more free action of the bowels, digestion becomes more perfect, and the products of this digestion reach the blood in a better prepared condition. This relieves the liver and kidneys, which no longer have to deal with so many products of imperfect metabolism, and therefore we rapidly see an improvement in the general health which is quite surprising in character.

ACTIVE DEPLETION IN PELVIC CONGESTION

The presence of congestion or inflammation, whether acute or chronic, involving the female pelvic cavity, forms grounds for anxiety. Fortunately, we have passed the age where operative conclusions are hastily made. A superficial study of the vascular supply of the female pelvic organs, with its vesico-vaginal and vesico-uterine plexus forming a complete network of anastomosis, is sufficient to show that local application of depleting agents to the vaginal and rectal canals form both practical and theoretical ideals in treatment, which by purgative action reduces the stasis of engorged cellular tissue and lowers vascular tension, thus aiding nature in restoring normal glandular action. Glyco-Thymoline in contact with mucous membrance everywhere produces the following physiological activities in direct proportion to the vascularity of the structure. It stimulates the secreting cavity of glandular bodies of all mucous surfaces, so that larger quantities of watery fluids are exuded. On the law of exosmosis, which determines the passage of fluids through the tissues the products of inflammation and materially reducing the danger of septic infection.

A NEW OINTMENT BASIS

A new ointment basis, "Absorbaline," for which various superior qualities are claimed, as per advertisement on another page, is being placed on the market by the Aspden, Palser Co., Toronto, who will gladly forward a generous sample to any inquiring physician. The firm is also manufacturing a Liquid Acid Phosphate which is said to be particularly helpful in the ailments for which such a remedy is ordinarily used.

Interesting
Therapeutic Advances

A palatable tonic food and reconstructive.

'Roboleine'

Trade Mark

Rapidly increases weight, producing firm flesh, strong bones and healthy blood.

Unequalled for fortifying weaklings—infants and adults against the effects of cold weather.

Its beneficial effect is immediate in Anæmia, Debility, Rickets and wasting diseases generally.

It is a scientific combination of Fresh Red Bone Marrow, Cream of Malt and the Hypophosphites.

Children Like It

Used in all the leading hospitals and sanatoria throughout the world.

Entirely Supersedes Cod Liver Oil.

Colloid Metals

A New System of Treatment.

'Collosols'

Argentum or Hydrargyrum
(1 in 2000)

Kill pathogenic micro-organisms in a few minutes yet are harmless to human beings.

"No microbe is known that is not killed in laboratory experiments within six minutes."
British Medical Journal, March 2nd, 1912

Used successfully in Gonorrhoea, Gonorrhoeal Conjunctivitis, Syphilis, Tonsillitis, Eczema, Rigg's Disease, etc.
'Lancet,' Feb. 3rd, 1912.

Given hypodermically, intravenously, by the mouth or applied topically.

NOTE.—Collosols are not precipitated by the blood when injected.

ENQUIRIES INVITED

Manufactured in the Laboratories of

OPPENHEIMER, SON & CO., LIMITED
LONDON, ENGLAND

Sole Agent for Canada

MERVYN E. VAN ZANT, 732 Yonge St. ∴ Toronto, Ont.

A PALATABLE FOOD FOR THE SICK

The term "Gum Gluten" has been adopted by this company as a distinctive and specific name of its pure gluten products. Chemically, gluten is classed among the "gums," and is exactly expressive of its physical character. It is exclusively used as our trade-mark, and also to denote its specific difference from the ordinary so-called glutens of commerce.

Food for the sick should be both palatable and various in form. Gum Gluten meets these requirements admirably. Its natural sweet and nutty flavor is so agreeable to the taste and so dissimilar in form of preparation that the most fastidious and whimsical will relish it as a most welcome addition to their dietary, discarding by preference all other breadstuffs and cereals.

Gum Gluten is invaluable in all cases of diabetes, dyspepsia, gastritis, obesity and rheumatism, being also a most digestible and nourishing food during convalescence and most excellent for infant feeding. Pure Gluten Food Co., New York.

THE TETER OXYGEN APPARATUS

The attention of the medical profession in Canada is called to the new improved Teter Nitrous Oxid and Oxygen Apparatus. This is certainly one of the most scientifically developed and practical apparatus for the administration of Nitrous Oxid and Oxygen, as also for other anesthetics. There is no doubt that the success obtained with Nitrous Oxid and Oxygen, as an anesthetic, depends entirely upon the apparatus used for their administration. With the Teter Apparatus there is administered to the patient an even and constant flow of Nitrous Oxid, and the flow of the Oxygen is carefully regulated. The gases are inhaled at about 90 degrees F., with no discomfort to the patient. Ether can be administered just as easily through this apparatus, and in every respect the Teter machine will be found satisfactory. With this apparatus there is a face and nasal inhaler with the mouth tube, the whole being the development of twelve years of practical hospital experience. The manufacturers are the Teter Mfg. Co., Cleveland, Ohio.

A SYSTEMIC BOOST

It is safe to say that the average physician is called upon to prescribe a tonic more frequently than any one other form of medication, unless it be a cathartic. Patients who are patients solely because they are tired, "run down," and generally debilitated, are constant visitors at the physician's office. Such individuals need something that will boost them up to their normal point of resistance and then hold them there: in other words, not a

Drugs & Chemicals.

MAY AND BAKER, LTD., manufacturers of pharmaceutical chemicals since 1834—offer at strictly competitive prices every description of pharmaceutical product—carefully standardised and complying with the Pharmacopœia and other recognised requirements.

May & Baker's products are purchased regularly by the India Office, the Crown Agents for the Colonies, The War Office, the Admiralty and a large number of foreign Governments as well as by many Hospitals and Institutions both at home and abroad.

The medical profession is invited to ask for May & Baker's chemicals in original packages—obtainable from all the leading wholesale houses in Canada.

MAY AND BAKER, LTD.,
BATTERSEA, LONDON, ENGLAND

HORLICK'S
MALTED MILK
IN TYPHOID FEVER

Pure, rich milk combined with an extract of malted grains, highly concentrated, partially pre-digested, palatable, and readily assimilated, makes **HORLICK'S Malted Milk** the physician's first choice when selecting a reliable nutriment in the treatment of Typhoid and other low fevers.

HORLICK'S Malted Milk has proved invaluable for many years past in the various diseases and conditions in which a complete, well-balanced diet is of vital importance.

A glassful, taken hot upon retiring, proves an excellent "Night Cap" for the physician, when tired out or "chilled through."

Samples sent, free and prepaid, to the profession, upon request.

HORLICK'S MALTED MILK CO.,
25 St. Peter Street, MONTREAL, Canada.

mere temporary stimulation, with secondary depression, but a permanent help to the revitalization of the blood and a general reconstruction. Pepto-Mangan (Gude) is not only prompt in action as an encourager of appetite and better spirits, but is also distinctly efficient as a blood builder and systemic reconstituent. It is pleasant, non-irritant, free from constipating effect and does not stain the teeth. It is thus a general constitutional tonic of positive service in all conditions of general devitalization.

A LEGACY OF PREJUDICE

When Dr. Harvey made the discovery that our blood circulated, his "New Theory" was strenuously combated by some of the savants of his day. The fact goes to show that the most conclusive demonstrations fail to enlist the generous acquiescence of those who suffer from that mental disorder known as "Bias" or "Prejudice." Nearly five years ago S. Davis & Sons, Ltd., brought out the "Noblemen" cigar, two for a quarter, and told the public that it was equal to "imported" brands at twice the price. Euclid taught that "Things which are equal to the same are equal to one another." His axiom is the basis of S. Davis & Sons' conclusion. "Noblemen" cigars are made from the choicest Havana leaf, and are made by Cuban workmen. These are the elements which constitute "imported" brands, and they are the only elements; therefore, the "Noblemen" is equal to "imported" brands, but is sold at half the price, owing to the incidence of taxation. Yet it took two years to convince every smoker in Canada. Such is prejudice!

INSTANT POSTUM

A prominent health authority writes as follows to The Postum Cereal Company, Battle Creek:—"The greatest hit ever made for the health of mankind you made when you gave to the world 'Instant Postum.' You did pretty well on Postum to be prepared in the old way by boiling, etc., but this last achievement was an inspiration.

"I was one of the first to adopt Postum, and then because it could never be had when wanted, and when served, was invariably spoiled as a beverage that was enjoyable, gave it up and the instant I saw 'Instant Postum' advertised I bought it immediately, and wherever I go I make my own Postum, and it is right. For the benefit of travelling men who use dining cars I will suggest that they can order a cup of coffee with a pot of hot water, make their Postum with the water and let the coffee remain in the pot, thereby saving five cents. For cream the charge is twenty cents, but by some process of reasoning of the public purveyors to the moving people you can get a cup of coffee and cream and hot water for only fifteen cents. It is needless to say that everybody says who knows me that I look fifteen years younger than six months ago, and between you and me POSTUM DID IT."

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